

**The Expansion of the University of Edinburgh
in the Post-war Era:
the development of the central area**

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Declaration

I declare here that this thesis has been composed by me. This thesis is my own research and the work within this thesis has not been submitted for any other degree or professional qualification.

Signed by _____ Date 26/11/2007

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Abstract

The post-war period was regarded by many as a time of excitement in British university education. It was manifested in the form of large-scale government-sponsored university development. This period experienced innovative exploration in higher education by intellectuals and educationists. Moreover, it was the period when universities in Britain started with, or continued their growth according to, master plans prepared by architects and planners. As part of the national trend of the expansion of higher education, the University of Edinburgh strove to grow and develop in the heart of the City, proposing a number of schemes for redevelopment. These extended from the 1947's design of imperialistic grandeur, through the 1955's idea of the courtyard layout, to the 1962's concept of the all-unifying podium. These were visionary but also led to considerable controversy in the planning process. The University authorities, and its architects, claimed that the redevelopment of George Square – the central area – would make a positive contribution for the education of people and to the urban identity of Edinburgh. Conservationists, meanwhile, regarded it as 'cultural murder'.

The aims of this thesis are to unfold the complexities of this, at times, controversial project. The thesis explores the post-war expansion of the University in four respects. Each forms one chapter. Chapter One deals with the influence of the national ethos for university reform and the university planning in the post-war Britain. This forms a general context in which the expansion of the University of Edinburgh was set. Chapter Two investigates into the legacies and problems inherited from the previous centuries of the University. Chapter Three explores the protracted planning debates relating to the University's redevelopment of its central area – George Square. The

evolution of planning in Edinburgh, in the 1940s, is also included in this chapter in order to put university planning in Edinburgh in a wider context. Chapter Four examines the process of fulfilling the ambitions of the University and its architects for the construction of buildings in this central area. The impacts of the policies of the U.G.C. and the academic changes are explored. Towards the conclusion of Chapter Four, general reflections are made on Edinburgh University's 'total environment'.

Based on the architectural evidence and historical records, the thesis examines the achievements of the university expansion in Edinburgh, and, equally important, its problems in terms of the relationship between the university and the city.

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Introduction

It is fitting that I should introduce this thesis with some prefatory words concerning myself and how the ideas that are at the heart of this work evolved.

Before commencing the present study, I had acquired some eight years experience of university campus design relating to both the practice of architecture and research. This experience disposed me to consider how a university grows and develops and, in particular, how a campus is absorbed into the community it serves and the environment to which it belongs. I developed these thoughts in my M.Arch thesis whose subject is the design and environment of the Chinese university in the twentieth century — bearing upon its architecture and planning. My thoughts have also been shaped by reading the work of writers of standing in this subject. On the basis of my own experience, and in the light of the texts I have read, I have concluded that there is much documentation on the growth of the universities up to the period of the early 1950s; but rather less attention has been paid to the growth of urban universities in the post-war period and to the balance that has to be achieved between the ambitions of academia and the needs of society. These broad generalisations — that I qualify and develop in the main body of the text — lead me to the present work and its subject — the expansion of the University of Edinburgh in the post-war era.

The growth of the University of Edinburgh in the post-war era posed unique challenges. Simply stated, as it strove to expand, in order to meet the challenges and problems associated with the growth in higher education, it confronted unique challenges. The university wished to expand in the central area — George Square — which immediately brought it into conflict with the city authorities and conservation

movements which, with justification, cherished the historic fabric of the town that they perceived as being under threat. How then could the university grow and change and, at the same time, resolve the conflicts that were ensuing and which threatened to forestall its very ambitions for expansion? This dilemma is the central proposition that the thesis seeks to explore. The work is concerned with the ambitions and challenges that faced the university after the Second World-War. The historical context is briefly examined and arguments are presented that reveal how the university authorities endeavoured to formulate an academic and physical framework appropriate to the needs of the newly-emerging sociological and technological society. This process was protracted and, at times, contentious. It involved the creation of plans that were discussed at length and which were several times set aside, only to be revised for further consideration. Moreover, all this took place within a national context that saw higher education increasing at an unprecedented rate. This observation is relevant to the thesis since I have considered it important to include observations relating to other university developments by means of which to place the achievements of the University of Edinburgh in its wider national and international context. Accordingly, I have not only researched local archives but I have also travelled extensively to other selected universities both here in the United Kingdom and in Europe. My debt of gratitude to those who have assisted me in my research is set out in the Acknowledgements.

Chapter One

Ideas in Transformation: university expansion in post-war Britain

Introduction

Expansion and experiment went side by side in university development in post-war Britain. Social changes necessitated reforms in education. Consequently, expansion challenged the status quo of the higher education system, so that the seeds of fresh ideas, of what a university could be and should be, would have the desirable soil in which to burgeon. The over-specialization of university education was heavily criticized and the role of the university in society became the focus of debates within the government and circles of sociologists and educationists. In the envisaged expansion, the role of the 'proper' physical environment, appropriate to higher education, was highlighted. The essence of this chapter is the exploration of the national ethos for university expansion, an examination of the major debates bearing on higher education and analysis of the university planning since the 1950s.

1. University expansion after the Second World War and re-thinking university education

During the late nineteenth century, industrial development in Britain had given rise to serious social problems such as the poor living conditions of the working class and their extreme separation from the middle and upper classes. Since the 1860s, education was regarded by the Government as a subject having statistical and philanthropic interests bearing upon social concerns, in effect a sort of social

science.¹ Piecemeal efforts by the Government were made to improve the opportunities for the education of the public. Through various educational acts from 1870², compulsory and free schooling was introduced as a means of alleviating social inequality. In the twentieth century education in Britain, however, gradually changed from being a mere remedy into a matter of wide public interest. Education was recognized as playing an important role in securing qualifications for the professions and occupations. In particular, technical schooling prospered during the early decades of the twentieth century.

Expansion of secondary education had profound effects on higher education in twentieth-century Britain. Continuing reforms in the fields of primary and secondary education, brought about by various education acts – the most influential being the Butler Act (1944)³ – provided more educational opportunities, raised the school-leaving age and resulted in many more school-leavers who were qualified to proceed to higher education. Furthermore, when the Second World War drew to its end, a large number of veterans returned home to resume, or commence, their higher education. It was perceived that there should be decisive action to cope with the ‘bottleneck’ between schools and institutions in higher education.⁴ The old pattern, in which only the elite of school-leavers entered higher education – especially universities – was challenged. More generally, people had a much stronger desire to participate in higher education than in the nineteenth century.

Since the Butler Act, in government circles, there was a growing realization of the

¹ Harold Silver, *Education as history: interpreting nineteenth- and twentieth-century education* (London: Methuen, 1983), p. 102.

² The Education of Act of 1870 was also known as ‘Forster Act’. It started a national educational system in England by establishing the nondenominational state schools which were the supplement of the voluntary schools run by churches and private individuals.

³ The Butler Act laid the principle of free education for all from primary to secondary schools.

⁴ W. A. C. Stewart, *Higher Education in Postwar Britain* (Basingstoke : Macmillan, 1989), pp. 40-41.

nation's economic dependence on higher education. Governmental investigations had shown that the limited number of graduates from the universities fell well short of meeting the requirements of society. For example, the Barlow Report (1946) had studied the development of scientific manpower in Britain. It revealed that Britain was in great need of scientists. It was estimated that by 1950-55 the minimum required number of scientists in Britain would be of the order of 70 - 90,000. However, the indications were that scientists from all kinds of institutions, including universities, would be only 60,000 in 1950 and 64,000 in 1955. Consequently, the Barlow Report urged that universities should consider their contribution to the improvement of this situation by doubling their output of scientists. University expansion in later years was planned under the principal that 'two-thirds of increases in student numbers should be sciences with an emphasis in the applied sciences whenever possible'.⁵ Despite the traditionalists' voice, that the university would become superficially utilitarian under this vast expansion, the reformist ethos prevailed. A few years later, the Robbins Committee (1962) (figure 1.1) was established 'to review the pattern of full-time higher education in Great Britain and in the light of national needs and resources to advise Her Majesty's Government on what principles its long-term development should be based'.⁶ One of the many findings of this committee was that the percentage of British school leavers, entering the universities, lagged far behind that in other western countries – the estimated percentage for 1968/69 was 10% for all kinds of full-time higher education, compared with 17% in France, 48% in USA and 13% in USSR.⁷ After a series of

⁵ Ibid., p. 90.

⁶ Committee on Higher Education of Great Britain, *Report of the Committee appointed by the Prime Minister under the chairmanship of Lord Robbins 1961-63* (London: H.M.S.O., 1963), p. 1.

⁷ 'Table 19: Percentage of the age group expected to enter higher education in selected countries 1968/69', in *Report of the Committee appointed by the Prime Minister under the chairmanship of Lord Robbins 1961-63* (see Committee on Higher Education of Great Britain, above), p. 46. It should be noted that the percentage in USA was much higher than other countries. But higher education in Great Britain achieved the highest efficiency – 78.4% of students completed higher education in 1961/62 – whilst higher education in USA had the largest wastage: 50% in 1961/62.

estimations, such as the size of age groups, output of qualified school leavers and the length of study, the Committee stated that: 'They demonstrate that the problems of the next ten years will not be symptomatic of a passing crisis to be met by temporary expedients: they will mark the dawn of a new era in British higher education'.⁸ They recommended a more radical expansion of the British university system, than that envisaged in the 1940s and the 1950s, by setting a target of 500,000 students enrolled in higher education by 1980. They further argued:

Unless this country is prepared to expand higher education on something like the scale we recommended, continued economic growth on the scale of the targets set by the National Economic Development Council is, in our view, unlikely to be attainable.⁹

An impediment to the implementation of the Robbins' recommendations was that the university system in Britain had, for the previous eight hundred years, evolved through a process of largely uncoordinated development. Its survival and advancement in the new era now depended on the benefaction and desires of many individuals and individual organizations working within and for higher education. In some quarters the university system was regarded as being 'a highly confused part of British academic administration'.¹⁰ Since the university system was now to become part of the means of achieving mass education in the postwar period, it was recognised that a modern, or national system of higher education, should be established with revised and common standards among the individual institutions of higher education.

In passing, we can note that a national system of education, including higher

⁸ Committee on Higher Education of Great Britain, 1963, p. 70.

⁹ Ibid., p. 73.

¹⁰ Stewart, *Higher Education in Postwar Britain*, p. 89.

education under the supervision of the state, was not new in Scotland. Such a notion had been considered during the Scottish Reformation by John Knox. In 1927, Alexander Morgan paraphrased Knox's idea: 'Scotland should have a complete national system of education [organised by the church] forming a highway from the primary school to the university ... There should be close co-ordination between different grades of educational institutions'.¹¹ It should also be recorded that, before the Robbins Report, some attempts had already been made to build up the national system of higher education. For example, the Education Board had been set up and a Minister of Education had been appointed by Westminster in the late nineteenth century. In 1918, the Committee of Vice-Chancellors and Principals – now renamed 'Universities UK' – was established among 22 universities and colleges, with the role of improving communications and consultation between individual universities as their authorities regularly met to exchange ideas and discuss their experience of managing their own institutions.

The necessity of financial support for the universities came to be recognized in the 1880s by the government. Due to competitive advancement of technical education in other countries, such as America and Germany, the government started to show close concern about education oriented to technical training since the late nineteenth century. In 1889, the Royal Commission on Technical Education revealed to the public that the UK lagged behind other western countries. In 1904, the University College Committee was appointed by the Chancellor of the Exchequer to allocate grants to the university colleges in Britain, in order to maintain their teaching and research at a university standard. During the following fifteen years, re-organisation and re-naming of this committee took place until 1919 when it evolved into the new University Grants Committee under the decision of the Chancellor of the Exchequer. Its task was 'to enquire into the financial needs of university education in the United

¹¹ Alexander Morgan, *Rise and Progress of Scottish education* (Edinburgh: Oliver and Boyd, 1927), p. 51.

Kingdom and to advise the Government as to the application of any grants that may be made by Parliament towards meeting them'.¹² In 1919, the U.G.C. first approved non-recurrent grants for repairing dilapidated teaching accommodation in the universities. Before the Second World War the work of the U.G.C. was mainly allocating government grants to the universities. However, as the U.G.C. fully realized, the government's actions between 1889 and end of the Second World War were mainly expediencies for coping with urgent problems. It was a reactive rather than proactive agency.

In postwar Britain, the government showed a strong desire for closer involvement in the development of university education in the country. They thought that the role of the U.G.C. in this development should be 'more explicitly defined'.¹³ The U.G.C.'s new dual role of central planning, and allocating grants for universities, was clearly indicated in its 1946 terms of reference:

To assist, in consultation with the universities and other bodies concerned, the preparation and execution of such plans for development of the universities as may from time to time be required in order to ensure that they are fully adequate to national need.¹⁴

They investigated the current situation in the universities in Britain by surveys and quinquennial visitations to universities; they analyzed their individual needs within the national context in order to keep a kind of balance between fields of development and between universities; and they allocated necessary funds for their expansion according to certain criteria which they stipulated.

¹² The University Grants Committee. Great Britain, *University Development from 1935 to 1947* (London: H.M.S.O., 1948), p. 7.

¹³ The University Grants Committee. Great Britain, *University Development from 1957 to 1962* (London: H.M.S.O., 1964), p. 184.

¹⁴ The University Grants Committee. Great Britain, *University Development from 1935 to 1947*, p. 7

From the 1950s, distribution of finance to the universities was rationally planned according to the economic, social and political situations prevailing throughout the country (figure 1.2). One of the first achievements of the U.G.C., during the postwar era, was to create seven new universities (Sussex – 1958, York – 1960, East Anglia – 1960, Essex – 1961, Kent – 1961, Warwick – 1961, Lancaster – 1961 and Stirling – 1964). Six were established in England because it was found that the ratio of the number of universities to the population was higher in Scotland than in England. Under the aegis of the U.G.C., existing universities were considerably expanded and the new universities were gradually established around the country. From 1938 to 1963, the recurrent grants from this government department rose from 36.2% to 70% of the total income of the universities in Britain and this percentage reached its climax, 78%, in 1975. More specifically, in the decades after 1945, the U.G.C.'s recurrent expenditure on the universities rose from £ 6.88 million, in 1947, to £ 189 million in 1970. As a result, the number of full-time students in the universities rose steadily from 68,452, in 1947, to 228,131 by 1970. The proportion of the age group receiving higher education rose from 6.9% in 1960 to 12.5% in 1980.¹⁵

These statistics reveal that the expansion of the universities, in the post-war era, is one of the great achievements of the UK. Equally important, as Asa Briggs, the social and cultural historian, commented in a seminar on university planning held at Sussex University in 1964: 'It is fortunate that a period of educational expansion in quantitative terms in Britain has coincided with a period of fresh thinking about the

¹⁵ The sources of the statistics are: (1) Great Britain. University Grants Committee, *University Development, 1935-47, 1947-52, 1952-57, 1957-62, 1962-67, 1967-1972* (London: H.M.S.O.), (2) Great Britain. University Grants Committee, *Statistics of Education: universities, 1966-1980* (London: H.M.S.O.), and (3) Great Britain. University Grants Committee, *Returns from Universities and University Colleges in receipt of Treasury Grant, 1919-66* (London: H.M.S.O.).

scope and content of university education in qualitative terms'.¹⁶ For the Government and intellectuals, the end of the Second World War brought the opportunity of building a new society in Britain which would have social security and unified aspirations. Higher education would play a vital role in bringing about these changes. This view was also shared by intellectuals on the other side of the Atlantic Ocean. In his seminal book, *Universities: American, English and German* (1930), Abraham Flexner, the American educationalist, had already gone so far as to assert that the university system was the primary means by which mankind could step out of the vale of ignorance by offering people the opportunity to learn more and thereby improve their social standing and self-esteem.

The university of which they spoke was the product of the scientific and social revolutions of the twentieth century. Notwithstanding these bold affirmations, there were heated discussions on the problems and challenges faced by the universities. Under the impetus of the wonderful achievements in science, in the first part of the twentieth century, there were subtle changes in the characteristics of the universities and their programme of education. With increasing professionalism, the 'semi-detached' intellectual tradition of university education had been overtaken by increasing participation. As Peter Scott, naturalist and Chancellor of the University of Birmingham (1973-1983), commented in 1984: 'Knowledge was more and more treated as a 'product' or 'object', that was useful for society rather than being allowed to be gradually transferred into society through pedagogy'.¹⁷

In his book *The Crisis in the University* (1949), Walter Moberly, Chairman of the U.G.C. (1933-1949), recognized this change by categorizing three periods of university development: (1) Christian-Hellenic tradition during the nineteenth

¹⁶ Asa Briggs and others, 'Some aspects of University Planning', in *University Planning and Design: A Symposium*, ed. by Michael Brawne, Architectural Association Paper, 3 (London: Published for the Architectural Association by Lund, Humphries, 1967), pp. 12-23 (p. 12).

¹⁷ Peter Scott, *The Crisis of the University* (London: Croom Helm, 1984), p. 54.

Century, (2) Liberal conception from later period of the nineteenth Century to the 1940s, and (3) Technological and Democratic education since the turn of the twentieth century.¹⁸ He considered that as the universities had transformed themselves from their ecclesiastical origin to embrace their wider social programme, in respond to the technological and democratic change, there existed a spiritual vacuum. He argued: 'The crisis in the university reflects the crisis in the world and its pervading sense of insecurity...The whole complex of traditional belief, habit and sentiment, on which convictions are founded, has collapsed'.¹⁹ For Moberly, in the universities of his time, these fundamental problems were not being addressed with serious commitment. As he commented: 'There is no profound mental effect on the average student ... whatever the cause, the university today lives and moves and has its being in a moral and cultural fog'.²⁰

In effect, it was perceived that there was a dichotomy facing the universities and university education. On the one side, some thought the most important task of the universities was to pursue knowledge for its own sake without being too engaged with the material world; on the other side, the view was that the universities should provide an education which was orientated towards the professional training of young people and was useful for the economic, political and social development of the country. In the 1970s, William Niblett, a member of the U.G.C., described this situation as being 'two worlds' in his book *Universities between Two Worlds* (1974). He observed that for the universities, to go too far either way would have fatal faults. W. A. C. Stewart, Professor of Education and Principal of the University of Keele from 1967, shared this view. He argued that, given the circumstance of mass education and the large investment of public money on higher education: '... universities have to be prepared to think far more in future in terms of cooperation

¹⁸ In Moberly's analysis, these three periods had some overlaps since Liberalism and technological and democratic education emerged in the apogees of their precedents.

¹⁹ W. H. Moberly, *The Crisis in the University* (London: SCM Press, 1949), pp. 15-16.

²⁰ *Ibid.*, p. 24 & p. 28.

for economic and manpower reasons but also for good academic reasons too'.²¹ These educationists believed that universities should not only be places where people were taught new knowledge or where they undertook research, but that they should also be institutions which promoted the general powers of the mind; in other words, universities should cultivate and transmit a sense of value in the minds of the people, especially the students.

Words are much easier to say than to apply to practice. Struggling to resolve the dichotomy of the two worlds would be one of the main concerns of the reform of university education in postwar Britain.

As the twentieth century's successful development in science and technology promoted the change from the liberal to the modern university, it was assumed that there would be a dramatic shift in the subjects which students chose to study in the universities: for example, there might be a considerable growth of enrolment in science departments. On the contrary, the balance of the subjects of study in the universities had not been disturbed.²² One of the unintended real changes in British higher education, after the Second World War, was the increasing phenomenon of what became known as the different 'cultures'. In particular, the writer and polymath, C. P. Snow discussed the notion of culture as the divergent relationships between different disciplines. He espoused the concept of 'the two cultures' – namely between science and the humanities. He was himself a physicist and worked for the Government. In addition, he was an accomplished novelist and, reflecting on his life,

²¹ W. A. C. Stewart, *British universities : dilemmas and opportunities; two lectures by the Vice-Chancellor W.A.C. Stewart given in the University of Keele, 4th and 5th March, 1968* (Keele: University of Keele Press, 1968), p. 25.

²² In the academic year 1937/38, Arts-based students in universities in Great Britain occupied 45.4% while the percentage of Science-based students to the total number of full-time students was 54.6%. In the academic year 1948/49, the ratio of Arts students to Science students was 44.4% to 55.6%. In the academic year 1958/59, the ratio was 43% to 57%. In addition, the years between did not see noticeable fluctuation of the figure.

Snow remarked: 'There have been plenty of days when I have spent the working hours with scientists and then gone off at night with some literary colleagues'.²³ His experience in both science and literature led to his 1959 Reith Lectures on the theme of the *Two cultures and the Scientific Revolution*. In these lectures he made a trenchant criticism of the increasing separation between science and the humanities in British society and especially in the academic field. Snow observed:

The non-scientists have a rooted impression that the scientists are shallowly optimistic, unaware of man's condition. On the other hand, the scientists believe that the literary intellectuals are totally lacking in foresight, peculiarly unconcerned with their brother men, in a deep sense anti-intellectual, anxious to restrict both art and thought to the existential moment.²⁴

He further argued that the lack of communication between scientists and people in the fields of the arts and literature was a major hindrance to the scientific revolution that he saw as necessary for the progress of modern society. Other writers and scholars had also considered the relationships between science, arts and society. Aldous Huxley's *Brave New World* (1932), the satirical fiction, confronted readers with a 'happy', but sinister, society dominated by biotechnology. The sarcasm propounded by Huxley was that under the creation of the *Brave New World*, through science and technology, the human society would have to sacrifice its humanity. With his humanist's standpoint, Huxley's writings reflected the concern about the potentially malign aspect of scientific progress on society.

Brave New World might be regarded by some readers as pessimistic and many of C. P. Snow's contemporaries criticized his oversimplification of the situation and his

²³ C. P. Snow, *The two cultures and the scientific revolution* (Cambridge: Cambridge University Press, 1959), p. 2.

²⁴ *Ibid.*, p. 5.

inclination towards the pre-eminence of science. Despite their reservations, the thoughts of Snow, Huxley and other contemporary scholars raised wide concerns bearing upon the coordination among different disciplines within the university. Some intellectuals argued that in the universities different disciplines, not limited to science and humanities, were increasingly being separated by the boundaries of departments and faculties. Michael Brawne regarded departmental frontiers as one of three major problems in higher education besides the problems of students' residence and tensions between flexibility and change.²⁵ *A Theoretical Basis for University Planning* (1968) acknowledged that 'one of the main charges levelled against the departmental structure has been the very restrictive effect that it has had on the division of knowledge into separate watertight subjects'.²⁶

It was recognized by education reformists that it was important to create an educational environment which could help to solve the dilemma raised by the above discussions. The Robbins Committee sketched four objectives for advanced study and higher education: (1) play a part in the general division of labour; (2) produce not specialists but promote general powers of the minds; (3) advancement and transformation of learning by teaching and research and (4) transmission of a common culture on the standard of citizenship. The general feeling among the reformists was that the foremost task of reform of the university system was the re-planning of the academic structure and the curriculum. Attempts were made to provide more opportunities for communication between the existing compartmentalized disciplines, such as the creation of new academic configurations and the provision of courses of greater breadth. For example, the School of Study, the academic structure adopted by most of the new universities, was an attempt to group

²⁵ Michael Brawne, 'Introduction' in *University Planning and Design* (see Asa Briggs above), pp. 7-11 (p. 10).

²⁶ Nicholas Bullock, Peter Dickens and Philip Steadman, *A Theoretic Basis for University Planning* (Cambridge: Land Use and Built Form Studies, Cambridge University School of Architecture, 1968), p. 32.

cognate disciplines. In the curriculum, staff and students were encouraged to cross the border between Arts and Science. At Sussex University, 'every undergraduate had to cross the dividing-line to see something of how the other side lived'.²⁷ Moreover, the extra-curriculum life of the students, which had long been neglected by other universities than Oxbridge, was given special attention since it was regarded as being an important contributor to the development of the students' mind and social outlook. The welfare of the students, including accommodation, physical exercise and recreational entertainment, all became part of the responsibility of the university.

2. The architectural environment and the universities

The universities did not possess any forms of plans for their growth before the foundation of Thomas Jefferson's Virginia University in 1825. The medieval foundations rented miscellaneous properties around their host cities for teaching. The much admired collegiate image – Oxbridge and Marischal and King's College of Aberdeen for example – was the consequence of centuries of piecemeal development – frequently involving 'town and gown' tensions and struggle rather than being based on pre-conceived plans. The Victorian universities in Britain, such as Manchester University, only developed their monumental buildings at disparate sites of the cities largely due to lack of financial support.

The tradition of the loose connection between the physical environment and the academic community of the university was progressively challenged in the post-war university expansion in Britain. This change is aptly summarized by Tony Birks who in his book *Building the New Universities* (1972) commented that educational reformism gave birth to a new social and architectural impetus. More generally, educationalists, architects and planners strongly believed that university architecture,

²⁷ 'Student Perceptions' in *The Sussex opportunity, a new university and the future*, ed. by R. J. Blin-Stoyle and Geoff Ivey (Brighton: The Harvest, 1986), pp. 36-49 (p. 38).

based on inspirations from the educational programme and possessing the highest quality of design, should contribute to creating an environment within which 'socially adjusted citizens' could be educated.²⁸ In addition, U.G.C. greatly increased the non-recurrent grants – a separate provision for the improvement and expansion of university buildings and facilities – which rose from £ 26 million, for the quinquennium 1947-1952, up to £ 79.9 million in the single year of 1965.

Inspired by the architectural environment of Oxford and Cambridge, and American campuses, the U.G.C. resolved that new universities should be established in attractive green-field sites²⁹, typically of the order of 200 acres in extent. This formulation was set by the U.G.C. as providing the minimum requirement for the long-term possibility for a university, of about 3,000 students, to develop and expand without further concern for conflict with the surrounding environment. Study of the planning of such campuses reveals different understanding and interpretation of the concept of a modern university by both the university authorities and their architects. For example: York University reinterpreted the collegiate model; Sussex University drew ideas from American campuses. Bath University and East Anglia University attempted a more radical approach which was intended to blur the boundaries between the subject disciplines through the design of a 'grand parade', or 'mega-structure', around which different faculties could be grouped together (figure 1.3). Detailed discussion of the planning of these new campuses, and other urban universities in Britain, takes place in the following section.

²⁸ Stefan Muthesius, *The postwar university: utopianist campus and college* (Newhaven: Yale University Press, 2000), abstract.

²⁹ The sites chosen for the new universities were nearby either small towns or cathedral cities. In 1963, Lionel Brett remarked that this kind of choice was largely influenced by the preference of the U.G.C. to the traditional link with the host towns of collegiate universities, such as Oxbridge and St Andrews. Universities of York, East Anglia, Essex and Kent were placed outside the cathedral cities, York, Norwich, Colchester and Canterbury while Universities of Sussex and Bath were given the sites on the outskirts of Brighton and Bath.

Experiments out in the field

The establishment of the new universities provided a golden opportunity for innovation and fresh thinking concerning university education. In 1963, Asa Briggs, then Dean of the Department of Humanities at Sussex University, argued that this chance to experiment should be free from the complexities associated with planning a university in a city.³⁰ For example, the planning of the University of East Anglia in Norwich gave up a riverside slum area within the town.³¹ Because of their importance to the arguments being presented here these universities will now each be considered in more detail.

Sussex University: American influence

Approved in 1958 by the U.G.C., Sussex University has its site in a valley to the north-east of the City of Brighton. Surrounded by woods of beech, the campus has its main entrance from the Brighton-Lewes road (figure 1.4). The University authorities decided that the University should launch its inauguration by providing courses in fundamental arts and sciences followed by the inclusion of applied fields of study in the later stages of university expansion. In terms of the structure of formal teaching, the departmental system was comprehensively abandoned for its perceived disadvantage of over-specialization. The college structure was also deliberately rejected as Asa Briggs argued: 'I knew too much about the atmosphere of Oxford and Cambridge colleges to feel that we could imitate them at Sussex or produce attractive alternative versions of our own'.³² In addition to these concerns about the nature of the academic structure, it was the understanding of the University authorities that: 'Beyond formal teaching the process of education should be continuous. [The]

³⁰ Asa Briggs, 'The Thinking behind Britain's new universities', *The Architectural Review*, 134 (October 1963), 233-35 (p.235).

³¹ Lionel Brett, 'Problems of planning the new universities', *The Architectural Review*, 134 (October 1963), 257-64 (p.258).

³² Asa Briggs, 'The Years of Plenty, 1961-1976', in *The Sussex opportunity: a new university and the future*, ed. by Roger Blin-Stoyle and Geoff Ivey (Brighton: Harvester, 1986), pp. 1-21 (p. 9).

education of taste (the architecture of the new university; its landscaping, furnishing and decoration; the pictures on the walls; and the musical life of the place) is a responsibility of the university as a whole'.³³

Creation of the campus started with two buildings: a Physics building and a multi-functioned building, later named Falmer House, which included non-science teaching accommodation. Falmer House also provided the amenities for the university community. Inclusion of these facilities would, as Lord Fulton, the first Vice-Chancellor of the University of Sussex argued, also make a contribution to solving the problem of 'nine-to-five',³⁴ during the University's infancy before adequate students' residences were available on campus.

When considering the planning of the campus, the architect, Basil Spence, recalled: 'The picture I had in my mind's eye was not an aggressive one of buildings thrusting themselves on the unsuspecting visitors but of brick enlivened by the white paint on the window frames, harmonizing, I hoped, with the rounded forms of the hills and trees'.³⁵ He expressed his appreciation of Frank Lloyd Wright's philosophy of the relationship between architecture and the natural landscape. Around Falmer House, the Library, Arts building and Science buildings formed the Great Court (figure 1.5). The axis, starting at the junction of the main road and running through the court of Falmer House, ended at the Arts building complex for whose lecture theatres Spence designed a dual-pylon entrance. Inclusion of the Chapel, an important element in Oxbridge colleges, in the Court, emphasized the hierarchical tone in the planning. By

³³ Sir John Fulton, 'New Universities in Perspective', in *The idea of a new university: an experiment in Sussex*, ed. by David Daiches (London: A. Deutsch, 1964), pp.19-20.

³⁴ 'Nine-to-five' refers to the pattern of university life in non-residential universities. Students and staff came to the university around 9 o'clock in the morning and returned home after class and work around 5 o'clock in the afternoon. Critics in the post-war period thought this pattern was not conducive to creation of integrated university community and that it would generate 'dead' university precincts after class.

³⁵ Sir Basil Spence, 'Building a New University' in *The idea of a new university* (see Fulton above), pp. 201-16 (p. 205).

placing this building off the main axis, surrounded by trees, architect intended to counterbalance the rigidity of the axial arrangement. Based on this 'core', Spence conceived that later extensions to these original buildings would form various courtyards accommodating the target figure of 3,000 students and allowing for further growth. Staff houses and halls of residence were placed on the northern periphery – deliberately at some distance from the hectic conglomeration of teaching and communal buildings.

In establishing the character of the architectural design for the Sussex campus, Spence emphasized the importance of history: 'By looking at old architecture of great quality one can begin to discern architectural truth ... let us define it as that constant quality of great architecture distilled by history. How much better it is to be stimulated in this field [of architecture] by historical study than to be seduced by some slick and flashy contemporary efforts which may be disproved by time'.³⁶ Having made this assertion, Spence disposed various buildings to accord with his stated ideals. The functions of Falmer House were organized around the inner court. He introduced a theme of a vault-column structure that divided the buildings into various harmonious parts (figure 1.6). The ground floor of the building consisted of undercrofts, kitchen and students' shops. The courtyard was separated from the main volume of the building by a moat. The upper floors were composed of a series of interconnecting spaces, rather than a traditional layout, in which the rooms were connected by corridors. For example, in making movement from the students' common room to the staff offices, one needed to pass through the coffee-lounge and refectory. These solutions were made based on two considerations: firstly, Basil Spence did not favour large communal spaces, for example, the café-like refectory, as 'such a vast area devoted to student feeding with all its clatter presented a most unattractive picture to my mind';³⁷ secondly, Spence had the aesthetic effect in mind

³⁶ Spence, p.213.

³⁷ Spence, p.208.

of combining informal design within the confines of a rigid frame, the latter being established by the structure and formality of the courtyard. He had experience and was still fascinated by this composition, that he had demonstrated in the Festival of Britain Exhibition at the South Bank in 1951 (figure 1.7).

Much of Spence's work shows strong influences from Le Corbusier: the Hutesontown redevelopment, Glasgow (1965), for example. Sussex resembles Le Corbusier's Maisons Jaoul, built in 1955 (figure 1.8). The major difference was that the vaults in Spence's design lacked structural justification since they were suspended from the main structure rather than supporting it. Nevertheless, Spence was proud of his eclectic design, which he applied extensively in later projects which included the Library of the University of Edinburgh (1967). Despite the above criticism, Spence's concepts earned appreciation from architectural professionals and the university community. Soon after completion of Falmer House and the Physics building, the architecture of Sussex received praise: 'Its individual and varied relationship of solid to void and its scale has been duly admired'.³⁸ Nigel Llewellyn, Professor of the History of Art at Sussex University, commented that the character of Basil Spence's Sussex Campus lay in the manner in which his imaginative humanistic design of the buildings always attracted people to think and to reflect.³⁹ Strong support for this kind of suburban campus life was clearly expressed in one graduate's words:

The main criticism [of living on campus] was that at worst they were imprisoned, cut off and isolated from the real world. The same reasons were behind my affinity with the campus... It was a pleasure to escape the world for those years and work in the intoxicating, timeless atmosphere, where the

³⁸ 'Library, Sussex University', *The Architectural Review*, 136 (December 1964), 403-09 (p. 406).

³⁹ The author had a meeting with Professor Nigel Llewellyn about the architecture of Sussex University at Sussex University on May 18th 2004.

amount of hours in each day was irrelevant and we could actually choose the stage at which we would work, eat and sleep. We had all the time we needed.⁴⁰

The first stage of Sussex University was a milestone in the postwar university planning in Britain. Some, however, had reservations. Contemporary critics, in the 1960s, were concerned that a potential problem of planning lay in the strong 'core' formed by the first stage of the buildings. Spence's plan for further stages (figure 1.9) complicated the simplicity and clarity of the Great Core. When he decided upon the planning motif of the courtyard, Spence himself had admitted that extension was 'a most difficult task for a building arranged round a courtyard, complete in form from the beginning'.⁴¹ In the following years, under the circumstances of dwindling governmental support, later extension did not have the resolve and integrity of Spence's imaginative work.

York University: collegiate tradition

While the planning of Sussex University drew inspiration from historical sources and the hierarchical configuration of the American campus, the planning of York University, which was approved in 1960, started by rethinking this hierarchy. Due to the need to provide ample residences for students and staff, the founders of York University decided to adopt a residential pattern of collegiate colleges since, it was argued: 'There are those who dismiss [the college concept] as a nostalgic reflection of the Oxford and Cambridge ideal which is out of context with the twentieth century. There is, however, a strong case for giving young people a centre of loyalty ... and for bringing about some measure of integration of their living, learning and social activities'.⁴² The designers of York University were, however, not content to merely

⁴⁰ 'Student Perceptions', in *The Sussex opportunity* (see Briggs above), pp.44 -45.

⁴¹ Spence, p. 209.

⁴² *University of York Development Plan 1962-1972* (York: York University Promotion Committee, 1962), p. 11.

imitate the Oxbridge tradition: they aimed rather to reinterpret it. After studying the relationship between colleges and faculties at Oxbridge, and the social pattern of colleges and universities of other periods, they proposed that the social pattern of York University should break the traditional boundaries between living, leisure and teaching (figure 1.10).

The physical expression for this new campus architecture would be a kind of 'molecule'. In this molecule, two residential colleges, and a science department, enclosed one central building and were connected to each other by non-science buildings (figure 1.11). Within the colleges, lecture rooms, seminar rooms and some non-science teaching accommodation were also included. In order to maintain comprehensiveness with regard to science teaching, from the earliest stages of construction of the campus, the science building, in the second phase, consisted of three basic departments namely: Chemistry, Biology and Physics.⁴³ In further phases, certain departments would be removed to a new science building. Thus, by the fourth phase each department would occupy an independent building. Similar to the radiating pattern of expansion from the Great Court at Sussex University, York University had new 'molecules' growing beside existing ones so that a complicated 'organism' would be generated along the proposed winding lake (figure 1.12). Landscaping, and seemingly random-placed buildings, were also based on considerations of the City Development Plan as 'the common land and the adjoining public open space can be seen to form one of these green wedges [of the City] and the University site is an obvious extension of this'.⁴⁴

Maximum flexibility for science and non-science buildings was another major aim in the planning and architectural design of York University. The physical plan of each

⁴³ The first phase of development of Heslington campus of York University was conversion of existing Heslington Hall and other buildings in the City into temporary accommodation for the first group of students and staff from 1963.

⁴⁴ *University of York Development Plan 1962-1972*, p. 15.

department was rectangular in shape, with a structural grid of 20 feet (6m). The inner space of the department was divided into undergraduate and graduate zones, with clear boundaries and independent entrances. Vertically, the building was divided into three parts: void for hoses and services; the main space; and a ceiling system of air extractors and top lights. Standardization of sectional arrangements and structure allowed for changes easily (figure 1.13).

The colleges were conceived as a form of two to four-storey country housing set by the lake, with various functions served by open corridors and covered passages. Void and solid were manipulated to create a diversified living and study environment (figure 1.14). Cost constraints imposed by the U.G.C. led to the application of prefabrication technology. The CLASP (Consortium of Local Authorities Special Programme) system had already been established in Britain after the War, as providing a means of achieving an economic and efficient solution for school construction on a vast scale. York University was the first new university to join this programme. Though constructed from prefabricated concrete, the campus buildings were clad with York Stone in order to harmonize with the surrounding natural landscape (figure 1.15).

Having no firm commitment to a specific architectural form, York University did not have the problems of integrating with original designs, as in the case of Sussex University. However, the architect, Lionel Brett, commented that the inward-looking character of each molecule 'tended to treat the spaces between the buildings as secondary, which may [he considered] lead to visual leaks as well as to waste of space'.⁴⁵ The random relationship between the molecules led the whole planned organism into a complicated network, as another critic remarked: 'Orientation is not easy within the university. One is not aware of the radiating nature of the plan when

⁴⁵ Brett, p. 261.

[located] on the ground'.⁴⁶ Remarks such as these about the problems of Sussex University and York University are concerned primarily with questions of planning. The relationship between planning and the growth of the university community will now be discussed against the background of other new universities which proposed more radical approaches.

The Universities of East Anglia, Essex, Bath and Warwick: urban character

Mega-structures: East Anglia, Essex and Bath

University of East Anglia

Quite different from the expansive campus set into the landscape at Sussex and York, the University of East Anglia, approved in 1960, was conceived as a compact form. This solution derived from the designer's architectural principles, the characteristics of the site and the academic planning that was proposed. The initial site was a golf course sloping towards the river Yare. For clues as to how the University should look, the architect, Denys Lasdun argued '[Our aim is] to create a place where activities merge and where the individual can sense his identity with the whole'.⁴⁷ Thus, for Lasdun, the independence and self-containment of collegiate buildings were not as desirable as the concept of compact planning which could facilitate more intense social interactions within the university community. The planning solution that resulted achieved a reduced footprint of the buildings and would, the architect considered, have the benefit of 'preserving the natural landscape'.⁴⁸

Lasdun submitted his first Development Plan in December 1962 (figure 1.16). Although the initial aim was for 3,000 students, East Anglia's long-term development was shaped by the general trend towards university expansion and Lasdun's Plan was therefore targeted for the student numbers up to 15,000 over a development period of

⁴⁶ Tony Birks, *Building the new universities* (Newton Abbot: David and Charles, 1972), p. 69.

⁴⁷ Richard P. Dober, *The new campus in Britain: ideas of consequence for the United States* (New York: Educational Facilities Laboratories, 1965), p. 54.

⁴⁸ *Ibid.*, p. 54.

fifteen years. The campus was divided into three zones: university centre, teaching and research area, and students' residences. The university centre and teaching and research area were placed in one continuous complex. The university centre consisted of the Library, administration centre, assembly hall, lecture theatres, refectory and common rooms, while teaching and research areas were a mixture of various departments. The specific planning of the Arts and Sciences provisions were evolved according to the requirements established by 'the Schools of Study [that were] conceived as groups of cognate academic disciplines'.⁴⁹ Starting from the example of Sussex University, the School of Study concept became popular in the new establishments of higher education as a means of bridging the gaps between different disciplines. At East Anglia, this complex of university centre and teaching and research area was on the north of the site, forming the main entrance to the campus, and residential wings were placed deep into the green fields of the site on the south. They were given connections with the communal and teaching facilities in the form of elevated passages. The shaping of the buildings derived from the contours of the site, and was also influenced by the meander of the river Yare. The spatial relationship between the teaching and communal complex and residential blocks was configured in the way that natural landscape could permeate to the walls of the teaching and communal complex. The residential blocks (figure 1.17) were conceived in the form of stepped terrains, the idea being inspired by the sloping site. Entrances to the residential blocks, located at upper floors, made frequent use of lifts unnecessary and thereby resulted in a reduction of construction and maintenance costs. In addition, each student flat had its own roof terrace and enjoyed a view to the river.

The architectural design for the residential blocks of the University of East Anglia was actually done by Ted Cullinan of Lasdun's office. The University of East Anglia

⁴⁹ Brett, p. 263.

was a formative example of Lasdun's design – aesthetics typical of the late 1960s and early 1970s. Its most prominent expression was the Royal National Theatre at the south bank of the Thames (figure 1.18). At East Anglia, the wings of the residential blocks were conceived like sculpture in concrete, with the intention of the architect being to build a man-made environment complementary with the natural landscape. With regard to specific details, the exaggerated gutters protruding from the corner of the residential blocks emphasized the sculptural quality of this material. Like Spence's Sussex University campus, Lasdun's campus in Norwich was much admired by contemporary professionals for being a powerful and imaginative work. However, the creation of the campus of the University of East Anglia faced several problems to which brief reference will now be made.

Firstly, delay in the construction of the new buildings required the construction of temporary accommodation on a site adjacent to the main site (figure 1.19). This temporary accommodation departed greatly in spirit from that of Lasdun and was named the University Village. Remarkably, the University Village became so popular among the students that subsequent demolition was not possible.⁵⁰ This Village, with its further extension, threatened the integrity of the planning of the campus. Secondly, a problem inherent in the large scale of the plan was that it was vulnerable to the fluctuation of political circumstance. Thirdly, deterioration of concrete, under the influence of the weather, had a negative impact on the perception of people (figure 1.20). Moreover, the elevated passages, that were expected to act as socializing places, failed to play their role. Unlike those at York University, the circulation passages at East Anglia leave commuting between teaching and living vulnerable to the changeable weather.

⁵⁰ Birks, p. 76.

At Colchester, ambitions for the university were like those at Norwich: (1) to achieve maximum social contact and interdisciplinary communication within the university community and (2) to affect the integration of living and working spaces. The difference in their starting points was that the Essex campus was planned as 'a university town'.

As at East Anglia, teaching accommodation and communal facilities were placed together; but in a different way. Taking the valley topography of the site into consideration, the architect, C. K. Capon placed the central buildings in the valley. The main service functions, car parking and even a bus stop, were within the valley so that the upper levels could be completely pedestrian. The central buildings spread out like a zigzagged rib. Lower buildings were placed to connect the wings of the central complex so that squares and courtyards, of various forms and sizes, could be generated (figure 1.21). For the students' residence, the then Vice-Chancellor of the University, A. E. Sloman, made the following argument:

[A] serious danger is that in order to leave room for teaching and research buildings to expand, living accommodation gets pushed out to the edge of the site. You create a separate residential area, and unless you are careful the whole centre of the university goes dead in the middle of the afternoon.⁵¹

In order to solve this problem, the architects planned tower blocks for the students' residences on the hills (figure 1.22). These blocks were organized in several groups, like wedges fitting into the overall contour of the central buildings. Thus, the distance of the residential areas from the teaching and communal buildings could be

⁵¹ Dober, p. 45.

reduced to only several minutes' walk. The students' residences were designed for optimum social contact between students. The basic unit of the tower blocks was the student flat which consisted of bedrooms and study rooms. They were conceived so that the tower blocks would be not mere living quarters for the students who lived on campus, but could also be used by those who commuted to the campus. Communal spaces of the campus were placed at the platform level of the university centre, having direct access to the squares. A restaurant, in the hexagonal shape like other independent lecture theatres of the campus, was placed in the half-way between the tower blocks and the university centre.

The extendibility of the central buildings, however, would not detract from this arrangement since the architects conceived that they could grow along the valley. It could be argued that the planning of Essex University was inspired by certain characteristics of earlier campuses: Sussex's square, York's flexibility and East Anglia's concentration. A shortcoming of the Essex campus lies in its extremely inward-looking character. As one critic put it: 'Its own handicap is that of all inner-orientated organisms and persons – an untidy exterior'.⁵² A common problem shared by Sussex and Essex was that designated spaces, socially oriented courtyards and squares in particular, did not gain popularity. For example, at Sussex, the nicely landscaped courtyard, within the Science building, failed to attract activities even in fine weather.

Bath University

As the same architects to York University a few years earlier, RMJM had a different approach to the planning of Bath University. The brief was scheduled for 5,000

⁵² 'Views and reviews: University of Essex', *The Architectural Review*, 134 (November 1963), p. 309.

students. It was assumed that two-thirds of the students would live on campus and that it would take less than ten minutes to cross the University on foot. Thus it was decided that 'the main feature of the University's architectural pattern will be the intermingling of academic and social accommodation in an architectural setting of a compact and urban character'.⁵³ Within this general concept, there were several specific architectural and pedagogical considerations: completeness at every stage of growth, continuous communication lines of walkways and flexibility of teaching accommodation. After comparing the concentrated campus pattern, the American campus plan and the molecule pattern, the architects adopted a linear arrangement which has the buildings of fixed functions in the centre, while the buildings with less fixed functions are on the periphery (figure 1.23), an approach frequently applied in other universities such as Leeds University. Thus, the communal buildings, restaurant, union, library, theatre and so on, formed the spine being surrounded by teaching and research buildings. Schools of Study were conceived to expand outwards from the spine so that 'although the Schools each have an individual identity ... they are not allowed to dominate its architectural form as separate building groups'.⁵⁴ Students' residences were to be built, over what was called the Parade, in the form of tower blocks dotted around this rationalized main skeleton (figure 1.24 & 1.25).

The spine was in the form of an elevated Parade which separated pedestrian activities from car parking and service facilities at the lower level. The main entrances to all the buildings were on the Parade. Like at East Anglia and Essex, this Parade was expected to play the role of 'living room' for intense social interactions (figure 1.26). Richard Dober gave a high commendation to Bath University: 'As a rational basis for planning it lends itself to decision-making on a democratic basis, a more difficult way to approach the process of planning than operating on intuition and group

⁵³ Bath University of Technology, *The proposed University of Bath, a technological university: development plan report number one* (Bath: The Bath University Press, 1965), p.13.

⁵⁴ *Ibid.*, p. 28.

reflection, but in the long view more suitable for a university'.⁵⁵

One of the problems in the planning of Bath University was similar to that encountered at Essex, namely the lack of a clear outlook for this essentially inner-looking community. Another dilemma, shared with East Anglia, was that 'such campuses can be alienating and are often removed from the building traditions of their region'.⁵⁶ Like the elevated passages of East Anglia, the proposed 'living room' (the Parade) at Bath University, seemed not to be as attractive to the students as the surrounding natural landscape. Consequently, during lunchtime, and after class, the garden to the south of the central buildings became a very popular place for various activities. Students preferred having their food in the garden to sitting beside the landscaped openings on the Parade. In addition, lack of control over the development of the students' residences had a devastating impact on the integration of the whole campus.

Warwick University in the 1964 Development Plan: university town

Warwick University was special to the new universities as from the beginning it was aimed at a much larger figure – 15,000 students. Another important requirement was that the campus should provide accommodation for two-thirds of students. Like that of Bath University, Development Plan of Warwick University of 1964 integrated student residences with the central precinct of the campus. The residential tower blocks were placed in the parkland surrounded by teaching buildings. Thus communal facilities, such as dining rooms and refectories, could be shared by the residential blocks and teaching accommodation (figure 1.27). Teaching accommodation and communal facilities were planned as a dense and complicated network with streets, courtyards and squares, resembling a typical town. In the initial stage, the Library, Arts Gallery, Assembly Hall, Administration and Chapel would

⁵⁵ Dober, p. 32.

⁵⁶ Brian Edwards, *University architecture* (London: Spon, 2000), p. 10.

form a main square, the pivot of the 'town' (figure 1.28). Based on this centre, the campus would, the architects conceived, have the flexibility to expand vertically and horizontally in various directions. For vehicle circulation, within such a vast area of university facilities, the architects adopted a solution similar to that at Essex, East Anglia and Bath, making full use of the topography of the site to allow vehicle access to the inner parts, at lower level, without disturbing the pedestrian environment.

At the same time, within the Development Plan, the architects, Arthur Ling and Alan Goodman, submitted a proposal for a new village to the east of the campus. This village was expected to have a population of 7,000, with its own shopping centre. A square was proposed to serve as the connection between the university and village (figure 1.29). This village would have a high percentage of student tenancy and pubs and bars would be opened in response to the extra demands for socializing. Also, this university-related neighbourhood was intended by the architects to overcome the usual isolation of a university community within a suburban area. With the growth of this village, it was expected that the campus could finally be linked with the City of Coventry.

The challenge that the construction of Warwick University faced was that the process of growth of the 'university town' was prolonged and uneven. Also, in its ideal form, it would cost a formidable amount of money which conflicted with the severe cost restraints of the U.G.C..⁵⁷ Arthur Ling quitted the job as the Consultant to the University and the first phase, 'the town centre', created in 1965 was, in spirit, closer to a typical American campus pattern than to the original idea (figure 1.30). The 1964 Development Plan was revised in 1966 by Rosenberg and Mardall. Compared with the 1964 Development Plan, the new plan continued with the American campus

⁵⁷ Birks, p. 105.

pattern of a rigid planning grid. Students' residences were, in contradiction of the original concept, pushed out to the periphery of the site.

Development of urban universities: Leeds University and Manchester University

Universities, created on green-field sites, had the opportunity to start from scratch with their plans for implementing fresh concepts for higher education. Although the universities on green fields were a successful experiment, in the 1960s, there were opposing opinions which recognized that communication between 'Town and Gown' was still of crucial benefit for the students, who would thereby have a fuller experience of society than their counterparts on rural campuses. Some critics regretted that opportunities for integrating the new universities into urban life had slipped away; for example, for Lancaster and East Anglia, alternative development sites in both host cities were indeed available. At the same time, there was already an understanding – dated back to the 1940s – that universities which had evolved in cramped historic cities, or in the industrial towns, did not have a desirable physical environment. Walter Moberly and other scholars criticised that these universities were 'less an Alma Mater than a bargain-counter' as 'there is little vital communication between different faculties or even between different departments'.⁵⁸ In the 1950s and 1960s, efforts were made to change this situation. Heated discussions took place in *The Architectural Review* in order to work out proper strategies for counteracting the increasing spread of their built fabric. One of the key points of these discussions was 'how to get the best of both worlds [suburban and urban]'. In *The University in the City* (*The Architectural Review*, July 1964), an analogy was made with Ebenezer Howard's Garden City.⁵⁹ Although it was not a

⁵⁸ Moberly, p. 15.

⁵⁹ Howard, the author of *To-Morrow: A Peaceful Path to Real Reform* (1898), was actively searching for a solution to urban problems. He propounded the attraction of three magnets: Town, Country and Town-country and proposed the Garden City – Town/Country – as the

specific solution to the problems that the urban universities faced, the editors argued, the 'Garden City' experiment of bridging the dichotomy – Town and Country – offered a lesson from which university development could learn.

In terms of the physical planning of urban universities, debate in the postwar period focused on how to compromise the contrasting 'wedge' and the 'wodge', as Lionel Brett's put it: 'A university requires a spectrum of flexibility which is more likely to be obtainable in a wedge penetrating a city than in a wodge at its centre. This, in a rough and ready way, is what many of the older redbrick universities have settled into, but the precedent of dispersal and a nine-to-five student rat-race is not encouraging'.⁶⁰ Separation of study from rest and recreation resulting from the wedge-like planning was well recognized while the wodge-like planning for physical proximity would, as critics well recognised, be impeded by the complicated urban situation. Thus, critics started to categorize which functions of the universities should go to the city centre and which did not. A kind of physical appearance of the university, shared by the critics in the 1960s, was as in the following description: 'classrooms, studios, library facilities, small laboratories, professors' and teachers' rooms, seminar rooms, lecture halls could quite reasonably be located in or near the heart of the city. One might add residential accommodation too... For the rest, if continuous wedge is possible, then the heavy space users could be arranged in this segment, leading outwards'.⁶¹

Many urban universities in Britain originated from technical colleges, including Birmingham, Manchester, London, Leeds, Liverpool, Nottingham, Strathclyde, Newcastle, Sheffield, Swansea, Keele and so on. The following part of this chapter will take Leeds and Manchester Universities as two samples, for exploring the

alternative to Town and Country which could avoid the disadvantages of both sides.

⁶⁰ Brett, p. 259.

⁶¹ 'The University in the City', *The Architectural Review*, 136 (July 1964), 9-11 (p.10).

tendencies of planning at existing universities within the urban context. These two universities represented two different ways of expanding the university in the city: one was the compromise between urban and rural while the other was the interaction between the institution and local authority.

Leeds University: suburban campus beside the city

Dating back to 1831, as the Leeds Medical School, Leeds University received the Royal Charter in 1904. Its old buildings were located on the edge of the City of Leeds, in a run-down residential area. They extended around the Leeds General Cemetery. Under the redevelopment policies of the City during the 1950s and 1960s, the University authorities had the ambition of redeveloping the surrounding decayed area into a pedestrian campus.

The 1964 Development Plan for the campus was based on the differentiation of functions in terms of their requirements for future changes (figure 1.31). The fixed functions which would not be subjected to frequent changes, the Library and lecture theatres for example, were placed along a kind of north-south axis, shaping the spine of the new area of the campus. They were expressed in architectural forms according to their special functions. Less functionally defined buildings, such as teaching and research units, surrounded the spine in the form of linear blocks. The linear blocks were interconnected by corridors which ran along the buildings at certain levels. From the corridors, it was conceived that people would enter the sections of individual departments by secondary staircases. These teaching and research buildings would form a series of rectangular squares around the main buildings (figure 1.32). The sloping site facilitated a similar planning concept to those at Essex and Bath campuses. Service facilities and car parking were placed below the decks and other parts of service plants were installed at the top of the buildings. The students' residences would be located on the west part of the site, being grouped

around courtyards. Between the new areas and existing university buildings would be informal gardens. As part of landscape renewal of the existing areas, reconfiguration of the cemetery was a major scheme. Richard Dober recorded the words of the architect, Peter Chamberlin: 'The prospect of having university buildings surround this open space is depressing but not because of it being a burial ground, but it is overcrowded, disarrayed, and badly neglected'.⁶² It was proposed that the walls be demolished, a few passages would cut through to make the cemetery accessible but most of the garden and trees would be preserved.

The proposed inner-ring road within the City Development Plan separated the university precinct from the fabric of the city centre. In order to build a connection between the university precinct and the Leeds General Hospital, which was on the other side of the road, part of the ring road was diverted into a tunnel. The general concept of a complete pedestrian campus was fulfilled with the expansion of Leeds University from the 1960s. Within the squares of the campus, people do not have the sense of being beside a metropolitan city centre as they cannot see the outside environment – except the steeples of the churches in the nearby area of the City. There are no towers on the campus and horizontality is the dominant element. The most prominent building is the Roger Stevens Building which contains the main lecture theatres, and beside which is a vast fountain (figure 1.33). This multi-storey building, with lecture theatres layered on the top of others, is located in the lower ground of the site, so that its huge volume does not impose a dominating impact on the campus.

The existing physical relationship between the university and the city in Leeds has some similarities with that of the University of Aarhus in Denmark. Aarhus University, established in 1929, had its campus situated on the edge of Aarhus, a small northern

⁶² Dober, p. 38.

Danish town. The design was by Kay Fisker, C. F. Møller and Povl Stegmann in 1932. It received praise from many British architects and critics in terms of its interior design and the campus's relationship with the natural landscape. The homogenous application of yellow bricks, and the way in which the buildings adapted to the surrounding landscape, was considered by Lionel Brett, in his co-article *University: Yesterday and Today* in *Architectural Review* (1957), as being a worthy lesson from which post-war British university planning should learn. The University possesses a nice landscaped campus around a lake. On the sloping site, the campus was divided into two parts, the main area on the north and the leisure garden on the south (figure 1.34). Architectural and planning quality is achieved at Aarhus and at Leeds University in the following ways. Both campuses possess good relationship with their host cities. On one hand, there are clear boundaries between the university precincts and rest of the cities. Both universities have roads defining their campuses and at Leeds, identical building – Parkinson Building – marked the entrance of the campus. However, this does not mean that they are isolated from the surrounding urban fabric. The nicely-landscaped park at the southern part of the Aarhus campus is actually a popular space for both students and people in the city (figure 1.37). At Leeds, Peter Chamberlin proposed a garden on the east side of the campus; but the site for the garden was later developed as a residential block of the city. Nevertheless, a large public park, Woodhouse Moor, already existed to the west of the campus and the high-density Medical Research blocks were developed at the south side of the campus. These act as buffering elements between university buildings and urban fabric. In Aarhus and Leeds, tranquillity of the teaching environment was secured while their connections with the host cities were maintained without causing direct visual conflict with the surrounding cityscape.

Differences between the two universities lie in two aspects: the characters of the towns and the interaction between the campus and urban space. Compared with

Leeds – an industrial town for manufacturing, Arhus was more agricultural in character, though the harbour was an important part of its industry. The divergence of the characters of the host towns was reflected in the architectural forms and plans of the universities. On the one hand, plans of Leeds University expressed the trend of ‘continuous teaching environment’ – a widely-acclaimed British contribution to modern university planning; on the other hand, there was absence of such a formal plan in Arhus and the starting point of its planning was more of the topography of the site than of planning of academic community. The harmonious relationship between the campus and the town of Arhus took seventy-year period of urbanisation to achieve. When the University of Arhus was established, in 1931, the University Park was outwith the boundary of the Town, surrounded by open lands and sporadically developed residential areas (figure 1.35). Since 1900, the Town of Arhus experienced considerable urbanisation with a doubling of its population. In comparison, the development of the Leeds campus was associated with the vast urban renewal after the War, one part of which was the inner ring road, a solution for traffic congestion within the city. While the spaces within and without the Arhus campus appeared to be dissolved into each other through a long period of evolution – the resulting dual character of the landscaped park at southern part of the campus for example, their interaction in Leeds was in a more hierarchical and structured way.

Despite the above differences, the development of Leeds University and Arhus University could be regarded as a kind of compromise which incorporated the character of suburban campuses into urban universities. The inner courts of Leeds University and the lake of Arhus University (figure 1.36) were intended by the architects to create a relaxed environment and students’ halls were provided on-site in order to overcome the ‘nine-to-five’ mentality.

University of Manchester: urban conglomeration

In contrast to Leeds University's demarcation of clear boundaries between the campus and surrounding urban fabric, the post-war development of the University of Manchester attempted to engage with the physical and social mixture between the University and the City. Although the plan for Centres of Culture, Education and Medicine at Manchester was prepared in 1945, and further plans were drafted by Hubert Worthington afterwards, serious steps were not taken until two decades later. The idea of redeveloping the area around the University of Manchester, into a multi-centre, was retained. In 1963, Hugh Wilson and Lewis Womersley, Architects, were appointed as the Planning Consultants by the joint committee which consisted of the representatives from the Manchester City Council, the University of Manchester, the Institute of Science and Technology, and the United Manchester Hospitals. On the southern edge of the city centre, the proposed precinct was a 280-acre north-south elongated site which included the existing buildings of the University of Manchester, hospitals and the Institute, and, surrounding the site, a declining neighbourhood with its service facilities and shops. A major north-south spine road, Oxford Road, ran through the middle of the Precinct (figure 1.38). The Consultant commented: 'The idea of the Precinct ... is of a special significance, not only in planning terms but also in the light of the Government's binary policy in education. Here there should be a real opportunity to achieve a comprehensive approach to Higher Education to meet the needs of a wide range of students'.⁶³ Two paramount considerations in the consultants' reports were, integration of the City and University, and the quality of the environment for the Precinct. The Joint Committee wanted to turn the Precinct into 'a meeting ground for town and gown [rather than] a private intellectual enclave'.⁶⁴ Thus, they established the following major conditions as being crucial for this aim:

⁶³ Hugh Wilson and Lewis Womersley Chartered Architects and Town Planners, *Manchester Education Precinct, the final report of the planning consultants* (Manchester: The Corporation of Manchester, 1967), p. 7.

⁶⁴ *Ibid.*, p. 7.

(1) the Precinct should provide accommodation not only for students and staff but also for other people in the City. At the same time, the institutions should encourage students to find rented accommodation in the surrounding areas in order to relieve some transportation pressure on the Precinct;

(2) the plan should include a shopping centre and other leisure facilities, such as restaurants, which could serve the Precinct and surrounding areas;

(3) except for the shopping centre and leisure facilities, the Precinct should provide public cultural facilities, such as theatres and lecture halls. And policies should be made to facilitate usage of the cultural facilities by both the City and the University.

Concerning the character of the multi-institutional Precinct, it was regarded as being socially beneficial and cost-effective for encouraging the three institutions – the University, City Colleges and the Institute – to share residential, dining, leisure and Union facilities. A Student Quarter was proposed in the block, along the Oxford Road, between these institutions (figure 1.39). The Precinct Centre was proposed around the south-west corner of the Quarter. It would include shops, professional offices, a public library, student health centre and a small police station and thus become, in the words of the consultants, ‘a local town centre’. The Precinct was divided into several zones: the University, Hospitals, City Colleges, the Institute, Student Quarter and students’ residences on the south-west block of the site. The consultant expected that the development of these zones would co-ordinate and merge together along the main spine – Oxford Road.

The major challenge to the environment of the Precinct was the contrast between the desire for maximum separation of pedestrians from vehicle traffic and the existing road pattern, especially that being cut through by Oxford Road. The consultants

succeeded in persuading the City Council to abandon its proposal to build an inner ring road through the Precinct. But the importance of Oxford Road for being the main service spine could not be neglected. Although a considerable number of student residences (7,000 places in 1974) would be provided, it was intended that a major part of the student body would find lodgings around the Precinct. Commuting to and fro in the Precinct would increase the traffic pressure. Concentration of most of the academic and medical institutions of Manchester, within one single area, would also increase the intensity of traffic. Thus, the consultants thought that a reasonable solution would be to 'concentrate attention upon reducing the level of traffic using [Oxford Road] to the lowest possible limits'.⁶⁵ They suggested improving other roads flanking the Precinct in order to relieve Oxford Road and 'restricting traffic on Oxford Road to vehicles connected with the essential servicing of the premises within the Precinct and to the City bus services'.⁶⁶ Apart from these solutions, the consultants integrated upper level footpaths into the public facilities along this road at intervals, in order to facilitate a safe environment for crossing pedestrians (figure 1.40).

Completion of all the new buildings would, the consultants expected, take around twenty years, which were divided into three stages: 1968, 1972 and 1984. During the interim stages, existing houses would be acquired and demolished through compulsory purchase orders. Part of the empty sites, reserved for later constructions, would be temporarily landscaped with grass and trees. Because of the vast scale and complexity of this project, the spaces between buildings were regarded as crucially important to the visual coherence of the Precinct. As the consultants put it:

It is not just a matter of planting but of the comprehensive approach to the relationship of surfaces and elements – buildings and pavings, pedestrian

⁶⁵ Hugh Wilson and Lewis Womersley Chartered Architects and Town Planners, p. 33.

⁶⁶ *Ibid.*, p. 25.

routes, roads and car parks, walls and balustrades, steps and ramps, groups and lines of trees, grass and ground cover planting, street and footpath lighting... – all the ingredients of the urban scenes. A consistent approach to the design of these elements could do more than anything else to reconcile conflicts in design of individual buildings.⁶⁷

The situation did not progress as the consultants assumed. Although the growth of the University generally followed the anticipated planning, the spatial arrangement evolved in a much more piecemeal way (figure 1.41). The project can be viewed as a bold attempt at mixing city life and that of the university by allowing local service and cultural facilities to function within the Precinct. However, the major problem for the built environment of the University of Manchester was that of which the consultant was most aware – the traffic of Oxford Road. With the student numbers of the University alone, exceeding the estimation of 15,000, and reaching 35,000 around 2006, the formidable amount of vehicle traffic through this route caused noise and pedestrian problems which far exceeded the planning solution provided by the consultants.

Fundamental issues concerning university planning during the postwar period

Some general remarks will now be made concerning problems associated with university planning in the postwar period. In its 1964 report, the U.G.C. recognized: 'The general view of the British universities was that great size can entail the loss of cohesion, with disadvantages both academic and social'.⁶⁸ For the postwar expansion of Oxbridge, with the student population was being doubled, Tony Birks observed: 'New colleges like Wolfson and Churchill are built much farther from the university

⁶⁷ Ibid., p. 72.

⁶⁸ University Grants Committee, Great Britain, *University Development, 1957-1962* (London: H.M.S.O., 1964), p. 77.

centre than the farthest colleges at, say, Kent but nevertheless rapidly form a well-integrated whole'.⁶⁹ That is to say, although there was a great diversity of university activities in Oxbridge after the period of expansion, there still existed a strong affiliation to the university community, more specifically, the collegiate tradition imbedded in the minds of every student and staff in these two institutions. Although the vice-chancellors of the new establishments and urban universities criticized the privileged collegiate system, they could not resist the attraction of the social cohesion nurtured by this tradition. Brian Edwards has seen British university planning in the twentieth century as 'the struggle for identity'.⁷⁰ The search for what kind of 'place' universities should be reached its climax during the period of postwar expansion. A related point can be made here. Although the concept of 'The Open University',⁷¹ propounded by Harold Wilson in 1966, questioned the notion of the physical existence of campus universities, the inclination to expand campus universities still prevailed. The vice-chancellors intended to exercise control over their unprecedented large student communities through physical planning. As the consultants for the University of Manchester concluded in their final plan: 'All the elements of the plan are but the means to achieve the desirable end – a total environment which will make the Manchester Education Precinct a good place in which to study, to live and to work'.⁷² At Sussex University and York University, control was achieved through making meaningful connections with buildings, so that a kind of identity could be generated in the minds of both students and staff. In the urban master plans of later new universities, the social cohesion depended more on physical concentration – a form of rubbing of shoulders achieved through higher density.

⁶⁹ Birks, p. 45.

⁷⁰ Edwards, p. 37.

⁷¹ As early as the 1920s, there emerged an idea in Britain of establishing a 'wireless university' for people who were not able to attend normal university education. After intense investigation and surveys, a planning committee was commissioned by the government to work on the project of 'The Open University'. Student applications started to come in 1970.

⁷² Hugh Wilson and Lewis Womersley Chartered Architects and Town Planners, p. 72.

The search for a kind of 'total environment' came to be regarded as a panacea for urban problems. In the 1964 A.A. (Architectural Association) and RIBA symposium on university planning and design, Michael Brawne expressed the general prevailing attitude to university planning: 'The questions arising from the complexity of urban planning ... are all present in university design. It is this focusing of attention on a range of unsolved problems within what is still seemingly a graspable unit which gives the university programme its importance beyond its obvious function'.⁷³ University planning had the attraction for architects and planners of being a rehearsal for comprehensive planning on the larger scale – that of the city. In the *Architectural Review* July 1964, the importance of university development to the society was analogized with the church building movement in the medieval period.

The period of post-war expansion of university education in Britain was characterised by debates and tensions about whether the universities should have master plans. Basil Spence was openly against having master plans. The architects to other universities, conversely, proposed detailed master plans closely associated with consideration of the academic arrangements. With the exception of Sussex University, postwar university planning in Britain was based on the rational analysis of the universities' structure and future. Flexibility was given a crucial position in university planning so as to accommodate the needs of the changing mass of higher education to the forms perceived by the university vice-chancellors and their architects. In their initial stages, the new universities in Britain marked a great achievement and represent an exciting experiment in university planning in terms of diversity, innovation and built form – all achieved under the yoke of severe cost constraints. However, these experiments reveal dilemmas as the communities of

⁷³ Michael Brawne, 'Introduction', in *University Planning and Design: A Symposium*, ed. by Michael Brawne (London: Published for the Architectural Association by Lund, Humphries, 1967), pp. 7-11 (p. 7).

3,000 kept growing, as the government urged, into much larger ones in the following decades. Although the U.G.C. realized the impact of size on the academic and social cohesion of universities and it argued that ‘we would not expect a university to grow beyond a size at which it could be comfortably integrated in its immediate environment’⁷⁴, there was little serious research undertaken on the relationship between the size of a university and its site. Ambitious development schemes of the universities, in retrospect, relied on political goodwill. As politics frequently fluctuated, postwar university expansion in Britain lacked a constant momentum. The vice-chancellors and their architects conceived their ‘visionary processes’ of developing the campuses but the protracted planning and construction process – mainly caused by the financial stringency of the U.G.C. – impacted severely upon the development plans for the universities. Their definition of clarity in academic phasing and architectural forms, also became vulnerable to sudden changes in developments in university education. When discussing a project like Lasdun’s East Anglia, Lionel Brett expressed concern for the adaptability of this kind of master plan: ‘Will the monument then be what people want? This is the question that hangs over this deeply felt and imaginative concept. It would be ironical if the vaguely disposed campus universities were found in the long run, because of their very imprecision, to have a higher survival value’.⁷⁵ The dilemma was not only a political issue, but was also about changes in concepts of higher education and the aesthetic appreciation of university architecture.

The architect-planners, Casson and Condor, made the following argument in their 1958 development plan report for Birmingham University: ‘Every building and each layout, so optimistically and thoroughly designed, seems to become within a decade not only out of date but physically hampering to the future. Any attempt therefore to constrict its movement artificially, either academically or physically, seems doomed,

⁷⁴ University Grants Committee, Great Britain, *University Development, 1957-1962*, p. 78.

⁷⁵ Brett, p. 263.

and rightly doomed, to failure'.⁷⁶ Although this remark has an acceptable logic, it revealed an underlying dilemma: how to distinguish an architectural plan, which drove the development of a university in an artificial way, from that which allowed a university to grow according to its natural pattern? Boris Ford's arguments revealed tensions between university planning and the growth of universities in this period of mass expansion: 'We live in an era when architectural planning and assumptions are of a kind that demand degrees of forethought which probably no academic community is willing to give and ought to be willing to give'.⁷⁷ Although it was relatively easier to estimate the needs for the initial stages of the new universities, university vice-chancellors found it difficult to make clear, long-term briefs when facing their formidable targets for expansion. Brian Edwards comments: 'University growth is marked by unpredictability which stems from the long timescale of campus evolution'.⁷⁸

When the momentum of university expansion diminished in the late 1960s, university experiments, architecturally and academically, began to face challenges. For example, the imaginative concept of 'School of Study' being adopted by the new universities, encountered organizational problems and some lack of support from the members of staff. In Sussex University, Asa Briggs commented: 'As the University grew, some new members of faculty ... did not really understand the system ... the different Schools did not succeed equally well in establishing themselves as social as well as academic units'.⁷⁹ An early graduate of Sussex University in the 1960s recalled the collision of ideas and practice in the university: 'The Arts Faculty, usually reckoned to be more interested in events beyond the ends of their noses, showed less interest than the scientists ... Employment prospects for graduates have

⁷⁶ Dober, p. 34.

⁷⁷ Asa Briggs, Boris Ford and others, 'Some aspects of University Planning', in *University Planning and Design* (see Brawne above), pp. 12-23 (p. 20).

⁷⁸ Edwards, p. 13.

⁷⁹ Briggs, 'The Years of Plenty, 1961-1976', p. 8.

dwindled; undergraduates now show greater enthusiasm for the straight-and-narrow of their subject – not for the time ‘wasted’ on peripheral activities, no matter how stimulating they may be to the intellect’.⁸⁰ Correspondingly, the architectural form which was closely associated with specific academic thinking was in question. At Bath University, the architects proposed a series of continuous teaching buildings in order to blur the boundaries between different departments. Individual departments were anonymous in this kind of plan. However, the department, as a conventional academic unit, was a deeply-rooted concept, which was not easily abandoned. For social interaction, the benefits of the department were still appreciated. As one scholar argued: ‘In some ways, the departmental organization [of the civic universities] can provide more natural opportunities for staff and students to meet informally’.⁸¹ Under increasing specialization in postwar higher education, recognition of identity, by individual disciplines, emerged. This ran into conflict with concepts of spatial and departmental configuration. The once ‘creative’ architectural plan, which was proposed to break down departmental boundaries such as that of Bath University, was regarded as lacking a sense of orientation.

For the urban campuses engaging in mass education, communication became the most important consideration for vice-chancellors and their architects. Questions of traditional hierarchy were much less on the agenda. In *Building the new universities*, Tony Birks makes an interesting comment concerning the appreciation of the environment of the new universities: ‘Perhaps it is appropriate to state here a personal preference for the new environment created at Lancaster amongst the Seven, but it is a preference shared with Sussex, much more arbitrary in plan but more successful in the superb aesthetic arrangement of buildings and spaces between them’.⁸² When the motivation for urban campuses faded, with the diminution of

⁸⁰ Ibid., p. 38.

⁸¹ Peter Marris, *The experience of higher education* (London: Routledge & K. Paul, 1964), p. 80.

⁸² Birks, p. 19.

political support – following the heroic decade of university expansion – later projects, and extension of these radical urban campuses, turned back to more traditional planning. Low rise buildings were grouped around courtyards, or were scattered in the landscape, and the close ties between teaching and living were loosened up. The last of the Robbins' universities, Stirling University (1967), drew to a close the tendency for compact planning. Although the central buildings appear to be concentrated, the campus is widely dispersed within the site, with the teaching accommodation separated from the students' residences by a large attractive artificial lake (figure 1.42). Though the college system was challenged by the university builders, the situation changed from the late 1960s. Stefan Muthesius commented: 'The college system was not much commented upon any more, but continued to be praised for the way it created 'communities''.⁸³

In the context of the preceding explorations, an important question can be raised. What were the implications of the ambitions and ambiguities of post-war university expansion and planning for the University of Edinburgh? The following chapters focus on how the University of Edinburgh saw itself under this general rubric. To gain a better understanding of the specific problems faced by the University of Edinburgh, within the national context of university reform, it will be useful here to make a brief survey of the origins and tradition of this University.

⁸³ Stefan Muthesius, *The postwar university: utopianist campus and college* (New Haven: Yale University Press, 2000), p. 184.

Chapter Two

The history of the University of Edinburgh and problems facing the University during the 1940s

Introduction

Founded as a 'Tounis College' in the sixteenth century, the University of Edinburgh had established its unique culture and relationship with its host town. Influenced by the national ethos, some of the received tradition was questioned. This kind of questioning provided the motive for the later development of the University. A brief investigation into the architectural history of Edinburgh University will be made in this chapter.

Prior to the foundation of the University of Edinburgh, there were three universities in medieval Scotland: St Andrews (1413), Glasgow (1451) and Aberdeen (1495). Hugo Arnot, a well-known historical writer in the eighteenth century, remarks that 'the fact that it was unusual to have universities erected anywhere but in metropolitan cities, was perhaps, the reason why no college was established at Edinburgh during the time of Popery'.⁸⁴ During the sixteenth century, Edinburgh was faced with serious problems of illiteracy and poverty and 'upon the establishment of the Reformation, the citizens made loud complaint of the increasing number of the poor, and the ruinous state of school, and other seminaries of learning'.⁸⁵ In the *Articles for the common policy of the Burgh* (1561), the Town Council stated their intention of

⁸⁴ Hugo Arnot, *The History of Edinburgh* (Edinburgh: Printed for W. Creech., and J. Murray, London, 1779), p. 386.

⁸⁵ *Ibid.*, pp. 386- 387.

establishing a college:

The rents, annuals, and other emoluments, which before were paid out of lands and tenements within this Burgh ... for maintaining of idolatry and vain superstition [should be] applied to more profitable and godly uses such as ... colleges for learning and upbringing of the youth, and other such godly works.⁸⁶

They requested the sanction from the King, James VI to establish a place of learning in the City. In 1583, with the support of a Royal Charter, a college under the administration of the Town Council was founded. The site of Kirk-of-field (figure 2.1), a deserted churchyard, was passed on to the Town Council as a gift and the Council could use the revenue from those properties for this 'Tounis College' which taught Arts, Theology and Philosophy. From the outset, the Town Council introduced a form of collegiate life into this new College and laid restrictive regulations upon the students. They required all students to reside within the College and to wear gowns daily. They also resolved that the students should speak Latin rather than 'Scotch'. However, it proved hard to sustain such a rigid collegiate pattern in the Protestant culture of the City of Edinburgh. Circumstances were also exacerbated by economic difficulties, since the Town Council could not gather enough revenues and endowment to build adequate chambers and common rooms in the College for accommodating all the students. When he wrote this part of history in 1967, D. B. Horn, the historian of the University of Edinburgh, remarked:

It is worth remembering that the ideas of the Scottish reformer, notably as stated in the First Book of Discipline, included the belief that the youthhead should be nourished and brought up in virtue 'in presence of their friends'. In

⁸⁶ Alexander Grant, *The Story of the University of Edinburgh during its first three hundred years*, 2 vols (London: Longmans, Green, 1884), 1, p. 100.

other words students should not be removed from their families and immured in a residential college.⁸⁷

That the collegiate pattern was given up in Edinburgh, Horn argued, was partly influenced by this idea. Consequently, students lived either at home or in rented flats and lodgings. In the eyes of their counterparts of other collegiate universities, students in Edinburgh's College appeared and behaved more like townsfolk than people within the academe.

The 'egalitarian democratic'⁸⁸ spirit of Protestant culture in Scotland created a good environment for education. In 1696, the Scottish Parliament passed the *Act of Setting School*, requiring that every citizen should acquire a certain ability to read the Holy Scripture. Under this Act, not only the religious gospels but also general knowledge was to be disseminated among the people. This Act fostered the desire for education in Scotland even for the poor. The relatively weak collegiate foundation of the University of Edinburgh, combined with the Scottish 'built-in bias towards learning, reading and education'⁸⁹, created a cultural environment in which 'auditing university classes became a favourite hobby among Edinburgh town people, just as professors regularly engaged in a community outreach to offer classes to students outside the academic setting'.⁹⁰ In addition, the lower tuition fee in Scotland than in England made the Scottish universities more accessible than Oxbridge. Furthermore, since the Town Council were 'the absolute patrons and governors' of the University of Edinburgh, their values impacted on the orientation of its education. One of the purposes of the King, in founding this university, was to bring up adequate professionally-trained ministers. Graduates from the University played a crucial role

⁸⁷ D. B. Horn, *A short history of the University of Edinburgh: 1556-1889* (Edinburgh: University of Edinburgh Press, 1967), p. 9.

⁸⁸ Arthur Herman, *The Scottish Enlightenment: the Scots' invention of the modern world* (London: Fourth Estate, 2002), p. 18.

⁸⁹ *Ibid.*, p. 21.

⁹⁰ *Ibid.*, p. 22.

in the advancement of the cultural, political and economic life of the City. With the advent of the eighteenth century, the dynamic cultural interactions between the University and the City were a powerful factor triggering the Scottish Enlightenment. For example, Adam Ferguson, Dugald Stewart and William Robertson, the leading figures in the Enlightenment, were all professors in the University.

The economic prosperity brought about by the Act of Union in 1707 and the cultural pride associated with the Scottish Enlightenment, promoted urban developments for both the City and the University. During the late eighteenth century, Edinburgh experienced a large-scale expansion. Part of the population of the Old Town overspilled to the north, and the New Town (figure 2.2) was established. The strictly rectilinear form and low density of James Craig's 1766 plan made great contrast with the irregularity and crowding of the Old Town. As Thomas Shepherd explained in 1829: 'Whilst the former (the Old Town) has no pretensions to beauty, or even architectural design, the latter is systematic, laid out with some regard to general effect, and according to an uniform and well-digested plan'.⁹¹ The neo-classical planning and civic architecture symbolised the glory of the age of reason that had arisen from chaos and won the city the accolade of 'Athens of the North' in the early nineteenth century (figure 2.3).

To the south of the Royal Mile, radical changes also took place. South Bridge was built and the new Nicolson Street was laid through the existing farmland so as to facilitate a convenient connection of the Old Town with the southern outskirts of the City (figure 2.4). George Square, a residential area and a chief suburb to the City, was established by James Brown in 1766 anticipating the similar form of Charlotte Square in the New Town.

⁹¹ Thomas H. Shepherd, *Modern Athens! Displayed in series of views* (London: Jones & Co., 1829), pp. 7-8.

The great contrast between new and old, and the rapidly changing urban environment, made the University's physical situation within the City more difficult. The University occupied a group of dilapidated church properties on the site of Kirk-of-field. There was an urgent need for more space for its expanding community. The construction of Nicolson Street caused the University's loss of the gardens on the east side of its land. William Robertson, the then Principal of the University, made an appeal to the Town Council that the University should be given premises that would provide both adequate accommodation and be a worthy monument that suited the growing international reputation of the University and the City of Edinburgh.⁹²

In 1785, Robert Adam, one of the most important architects in eighteenth-century Britain, was approached by the Town Council. He worked out a proposal for a new building of the University to accommodate most of its faculties. In his neo-classical design, Adam combined the triumphal arch motif with an awe-inspiring monolithic Doric colonnade gateway (figure 2.5). This motif derived from his earlier design of a triumphal arch flanked by arcades for the entrance of the University in the 1785 plan for the South Bridge. With the exception of the imposing and dynamic expression in the design of the façade towards the South Bridge, other façades were of 'a weighty, humourless look'⁹³ which was probably derived from consideration of the surrounding narrow and dark streets. For the plan of the Old College, dual courtyards were proposed and changing levels in the main quadrangle and the fore-quadrangle were manipulated by Adam so as to form a kind of procession from the entrance to the heart of the University (figure 2.6). Surrounded by lecture rooms of different faculties, a university chapel, library and professors' houses, the courtyard, derived from the Oxbridge colleges, provided an ideal meeting place where people would

⁹² Andrew G. Fraser, *The building of Old College: Adam, Playfair and the University of Edinburgh* (Edinburgh: Edinburgh University Press, 1989), p. 90.

⁹³ Doreen Yarwood, *Robert Adam* (London: Dent, 1970), p.168.

communicate and learn from each other.

Adam died, however, before completion of his building and the start of the Napoleonic Wars drew construction to a halt. From the 1820s to the 1840s, William Playfair, the successor of Adam, combined the dual courtyards into one great quadrangle (figure 2.7) and he subsequently made changes to the courtyard facades. The dome, in Adam's design, was not constructed, due to lack of funds, until 1887 when Robert Rowand Anderson completed it with his revised design. Anderson's dome, on top of the gateway, complete with a statue – a youth with a torch – became a landmark and symbol within the City. It proclaimed the importance of knowledge within its urban environment.

The Faculty of Medicine, established in 1726, enjoyed growing prosperity and a developing international reputation and 'Edinburgh faced little effective competition from other British universities during the eighteenth century'.⁹⁴ During the nineteenth century, it became the largest faculty in the University. By 1815 the University of Edinburgh had about 2,000 full-time students of whom almost half studied Medicine.⁹⁵ With these developments, Old College was unable to meet the requirement for specifically-designed laboratories for medical studies. Vacant land was therefore obtained in Teviot Place which was close to the Royal Infirmary, which would move to its new location at Lauriston Place in 1879. In 1876, Robert Rowand Anderson was commissioned to design a new Medical School. His design responded to professionally oriented medical studies and he arranged a series of laboratories and lecture rooms around two courtyards. The idea behind the courtyards was, however, quite different from that of the quadrangle of Old College, as Anderson put it:

⁹⁴ J. B. Morrell, 'Medicine and Science in the Eighteenth Century' in *Four Centuries: Edinburgh University Life*, ed. by Gordon Donaldson (Edinburgh: Edinburgh University Press, 1983), pp. 38-52 (p. 40).

⁹⁵ Ibid.

I found from trial the arrangement I suggest much better than arranging the buildings around a large quadrangle. No doubt a 'quad' is a very fine architectural feature, but it can never compensate for bad internal arrangements, and there can be no doubt, judging from what is being done elsewhere, that the future success of Edinburgh, as a great practical school, depends greatly on the efficiency of its laboratories; and it should be remembered by those who would like to see a quadrangle, from its association with old academic buildings, that this is a totally different building.⁹⁶

The whole layout did not strictly follow the symmetrical principle of classical architecture. Rather, it was a solution to the requirements and the sloping site. The Medical School building was an amalgamation of various styles and the adoption of ornate stonemasonry. Anderson's northern Italian renaissance style was combined with Gothic details, while the solidity of the building contrasted with the delicacy of Gothic polychromy and the picturesque skyline. He also proposed a San Marco like campanile between the Medical building and the Graduation Hall (figure 2.8). Although the campanile was not constructed, his idea seems quite clear; the new complex, together with Old College, was one of the chief representatives of the academic power and activity of the University in the urban environment.

Under the general expansion of technical education in Britain, the late nineteenth century also saw an increasing concern in the University of Edinburgh with teaching and research in applied science, with a new and separate Faculty of Science being established in 1893. The Faculty of Science was also looking for a new home. Rooms in Old College continued to be used as laboratories until 1919 when the University obtained a 115-acre site two miles south of the City at Mayfield Road

⁹⁶ Rowand Anderson, *Edinburgh University extensions: notes on plans* (Edinburgh, 1874), p. 15.

(figure 2.9). Chemistry was the first science department to move to the site. The buildings for Zoology (1927), Engineering (1930), Animal Genetics (1930) and Geology (1931) were designed by John Matthew of Lorimer & Matthew (figure 2.10). These buildings were placed with considerable distance from each other in order to allow adequate space for their later extension. They formed the group which is now called the King's Buildings. With the exception of the Science departments, other faculties overspilled as well. During the 1930s, after the reunion of the Church of Scotland, the Faculty of Divinity of the University of Edinburgh shared the New College site on the Mound with New College (figure 2.11), by paying rents to the Church. With the continuous overspill and expansion, the built fabric of the University was stretched from a close-tied core to extend over a much larger area (figure 2.12).

Another important change for the University at the turn of the twentieth century was the establishment of University Hall by Patrick Geddes. In 1886, he rent three flats at Mound Place in the Old Town near his new home at James Court. After refurbishment and arrangement on the floor plan, Geddes turned the flats into a kind of student residence which 'provided accommodation for seven men: study-bedrooms, a common kitchen, a dining-room, and a drawing-room'.⁹⁷ Drawing inspiration from the European universities such as Bologna University, Geddes conceived the University Hall as a self-governing body. A committee elected from residents was in charge of internal affairs of the Hall while some members of staff in the University were responsible for administration and management.⁹⁸ Apart from the issue of self-governing, he had the picture that the University Hall would not only be a place for communications between students, but also facilitate the close association of students with urban life – the University Hall embodied, in Geddes's words, 'a

⁹⁷ Roy M. Pinkerton, *Patrick Geddes Hall, Scotland's first hall of residence* (Edinburgh, 1978), p. 7.

⁹⁸ In 1896, the responsibility of external affairs was transferred to the newly-founded Town and Gown Association under Geddes' aegis.

more unified civic and educational policy'.⁹⁹ His ambition was beyond the mere urban improvement which included the University Hall. As he argued in his 1911 'Civic Survey of Edinburgh: '[The historic remnants of Old Edinburgh should be developed] into a collegiate street and city comparable in its way with the magnificent High Street of Oxford and its noble surroundings'.¹⁰⁰ The University Hall at Mound Place was a success and it soon attracted many social activities. In the 1890s, Geddes acquired properties in surrounding areas, Riddle's Court and Ramsay Garden, for the expanding University Hall and its residents steadily grew from only seven at the beginning to around 120 by 1894.

Together with the physical expansion of the University, were changes in the relationship between the University and the City Council. Disagreement and dispute between the Senate of the University and the City Council on administration in the nineteenth century, as Horn observed, was aggravated by the gradual intervention of the government into the university education. The implementation of the 1885 and 1889 Scottish University Acts led to the University of Edinburgh becoming an autonomous institution, no longer under the administration of the City Council.

The University of Edinburgh had always experienced difficulties in handling its development and expansion, especially in terms of funding. The construction of Old College took more than fifty years, from 1789 to 1840. Although the University prided itself as the owner of several classical monuments, the University authorities could regret that it never achieved the colleges which were intended to provide a protected environment consisting of nicely laid out gardens and trees in which students and staff could live and work. As Lord Cockburn commented:

⁹⁹ Patrick Geddes, *The Civic Survey of Edinburgh, with illustrations by F.C.Mears, reprinted from the Transactions of the Town Planning Conference* (London, 1911), p. 569.

¹⁰⁰ *Ibid.*, p. 572.

When the [Old] College was begun, it was in a large piece of nearly open ground; laid out chiefly in gardens...It might have stood, though rimmed by street, with much turfed and shrubberied space beyond this rim, with little noise; and the possibility to be seen. It is now jostled by houses all round; without a foot of soil except what it stands on...As it is, it is nearly lost, externally, as an ornament to the town.¹⁰¹

Despite these physical difficulties, the University had gained a substantial reputation for the high standard of its education, especially during the Scottish Enlightenment as previously explained. Interestingly, people working in the University of Edinburgh seemed to accept the frugality of its architectural provision. Moreover, the pattern of living off the college came to be treated as a virtue of the University of Edinburgh compared with the collegiate system of its English counterparts. Unlike other ecclesiastic universities, as one scholar observed: ‘[The University] imposed no religious tests on students ... no paternalism was exercised through residence requirements. At Edinburgh, students enjoyed the freedom of a relatively cheap non-residential University’.¹⁰² Students could freely choose where and how they lived depending on their preferences and financial situation. This kind of solitude and independence – ‘cultivating the Muses on a handful of oatmeal’¹⁰³ – was regarded as the advantage of keeping them away from dogmas.

The tone of this ideology changed in the twentieth century. For example, during the 1940s there was a proposal that the University of Edinburgh should make gown-wearing compulsory during the hours spent within the University’s precincts. The reason for this was: ‘The University, scattered to the extent that this one is, and

¹⁰¹ Henry Cockburn, *Letter to the Lord Provost on the best ways of spoiling the beauty of Edinburgh* (Edinburgh: Adam & Charles Black, 1849), p. 17.

¹⁰² Morrell, p. 43.

¹⁰³ ‘Your Struggle for Existence’, *The Student (Edinburgh University Magazine)*, 6 February 1948, p. 124.

with as little vestige of corporate life, the gown will provide, or help to provide, a sense of unity. Undoubtedly, it would help to solve the corporate problem'.¹⁰⁴ As the University grew from an institution consisting of 1,000 students to one with 6,000, its old traditions came to be treated as barriers to building and enlarging the corporate life of the institution.

In the first instance, the disadvantages of the University's non-residential tradition were questioned. *The Scotsman* on 2nd November 1946 reported that 'it would seem as though that long-established and well-appreciated feature of student life would enjoy no more than a traditional interest and that the University would become to an increasing degree residential in character'.¹⁰⁵ An article *Your Struggle for Existence* of 1948, explored, in detail, what kind of accommodation should be suitable for the student, 'this mystical beast' and it raised the concern about 'how to differentiate him among his six thousand odd fellows who tumble sleepily each morning out of trams and buses and pour into the bowels of the Old Quad., into Minto House, King's Buildings, and the rest'.¹⁰⁶ Although some lodgings and tenements offered a good quality of residence in terms of the surrounding environment, furnishing and the hospitality of the landladies, the general lack of housing with decent facilities, and continuous urban decay around the City of Edinburgh during the inter-war years, made it difficult for students to find adequate accommodation. In addition, the pressures of the housing market made these scarce resources increasingly unaffordable for students. The prevailing tough economic and social circumstance caused by the 1930s' economic crisis and the Second World War, combined with the tensions between the 'stingy' and 'covetous' landladies and the 'irresponsible' students, exacerbated the disputes between Town and Gown in Edinburgh. Living in tenements and lodgings was no longer perceived as an advantage by the students and

¹⁰⁴ 'Gown for Sale', *The Student (Edinburgh University Magazine)*, 7 May 1948, p. 300.

¹⁰⁵ 'Expansion of universities: problems reviewed by Principal Sir John Fraser', *The Scotsman*, 2 November 1946, p. 5.

¹⁰⁶ 'Your Struggle for Existence', p. 124.

the University authorities. The following quotation captures the view that prevailed at this period:

The lodger, struggling before his gas fire with Roman Law or the gaudy pages of Jamieson, feels the oppressive atmosphere of the moribund Victorian furnishings, the supercilious gaze of the weathered daguerreotypes and wishes perhaps for surroundings more typical of a University.¹⁰⁷

Living with other fellows in the University, under warden, was regarded as the alternative to this kind of seclusion. As being mentioned earlier, in the late nineteenth century, Patrick Geddes had initiated the idea of University Hall by converting existing houses in the Old Town into student's residence. Those were autonomous student communities, which, he believed, would combine experience of urban life and seclusion for study. In the early decades of the twentieth century, students' residences were gradually established by the University authorities and by the end of the War, there were nine halls of residence, three of which were in George Square: Cowan House, Masson Hall and Muir Hall. Others were scattered around the City at Inverleith Place, Chalmers Street, Craigmillar Park, Park Road, Prestonfield and Mortonhall Road. They were planned to initiate close communication between students and to ensure that the students could get good instruction from the residing wardens who acted as members of the staff. However, each hall barely exceeded the capacity of 50 study bedrooms and altogether the halls only occupied a very small part of students' residences.

The next aspect of the University's facilities to be considered was the growth of its teaching accommodation. By the twentieth century, the University had evolved into an institution with six Faculties, namely: Arts, Sciences, Medicine, Music, Divinity

¹⁰⁷ 'Your Struggle for Existence', pp. 124-125.

and Law. The unplanned expansion of the individual faculties of the University, especially since the late nineteenth century, stretched the University from a tightly woven core, between Old College and George Square, to a much more widespread urban fabric. Medicine developed its building in Teviot Place and Science was re-located to the suburb. The remaining four faculties Arts, Divinity, Law, and Music were spread around the city centre. Law occupied Old College, Divinity incorporated the Free Church College. Music was based in the Reid Concert Hall, and Arts occupied the ad-hoc old buildings at various locations around the city centre. The separation of faculties around the City was regarded by the University authorities as an important contributor to the increasing alienation of different departments and faculties. As the 1944 memorandum of the Special Committee of the University Court on post-war development mentioned: '[The expedient policy] of the development of the University during the last fifty years [had] consequent loss of efficiency and of that sense of unity which is essential to a healthy corporate life'.¹⁰⁸ Also, the quality of the teaching environment was under fierce criticism. W. L. Renwick, Professor of Linguistics, lamented the quality of the environment in the old buildings of the University. He criticized Minto House saying, '... inculcating the spiritual and aesthetic qualities of poetry, or the niceties of linguistics, [would be impossible to be accomplished] in windowless, unventilated cupboards [of the basements]'.¹⁰⁹ He commented on the Playfair Library in the Old College: 'So much admired ... as a place for scholars and librarians to work in, the University library is a shambles'.¹¹⁰ He urged the 'release [of] young people from the sordid quarters in which their health and spirit were steadily depressed'.¹¹¹

¹⁰⁸ 'Memorandum on post-war planning submitted to the University Court by the Senatus and by the Special Committee of the Court on post-war development on January 1944', *Post-World War II Development: Volume I 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁰⁹ 'University Development: Professor Renwick on the barbarism of Minto House', *The Scotsman*, 14 September 1959, p. 8.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

The growing needs for accommodation for the teaching staff exacerbated the situation. The habits of the staff and students of the newly emerging generation were different from those from the time when the old buildings had been constructed. For example, professors used to have their own separate rooms adjacent to the lecture rooms and other teachers spent little time in the University except during teaching and tutorial time. In Old College, there was no space designed specifically for them. These customs changed radically as the University evolved into the twentieth century:

They (lecturers) were spending far more of their time in the University, teaching loads increased... it was coming expected that teachers would be generally available on the premises... The changes in the habits of the staff, have facilitated contact with the students.¹¹²

With the changing habits of the teachers and the growth of the university community (Diagram 1), socializing between students, and students and staff, became more and more important. As a consequence, Teviot Row House, the existing Union Building, was too small for this growing need. There was a great need for improved communal facilities, such as the Student Union and sports centres, which would attract students and teachers from their separate units around the City. In *Some changes outside of the classrooms*, Denys Hay, Professor of History, recalled his astonishment, when he came to the University in 1946, that the University had no purpose-built common room. Some students had their class breaks in the cramped rooms of Old College while others met in the small coffee bars around the University.

It was strongly felt by the University authorities that: 'If it is to regain the sense of unity which is essential to a healthy corporate life, there must be a reversal of the

¹¹² Morrell, p. 43.

policy of dispersing its activities over a wide area of the city'.¹¹³ Backed by the national movement for educational reform, and the expansion which had started in the 1940s, the University of Edinburgh found itself in a good position not only to provide adequate place for its Faculties and students but, equally important, to reorganize its role within the community as a whole. The challenge was that the envisaged expansion and unification for a large community of 6,000 students meant that the plan, either academically or architecturally, would be enormous in scope. The opinion of moving the University from the crowded city to a rural site was raised. In Edinburgh, the King's Buildings campus of the University had, as previously remarked, been established as the first stage of overspill for the Science Faculty to the suburban area.

From the 1940s on, the University authorities had resolved to play a vital role in the urban life of Edinburgh, as they had during the previous centuries. Thus, the possibility of moving to the King's Buildings was denied for the reason of the fully recognized disadvantage of severing the university's urban connection. So, the question confronting the University was: how could it deal with its fast growing community of 6,000 students and avoid the danger of urban conflict within the congested city? Visions published in 'University in the City and City in the University' by Edward Appleton, the Principal of the University between 1949 and 1965, were heavily criticized and the University project was scorned as being a 'villain'.¹¹⁴ As the next chapter will show, planning for the expansion of the University of Edinburgh encountered many challenges including conservation and redevelopment and endeavouring to unify academe with day-to-day urban life.

¹¹³ 'Proposals for the future development of the University of Edinburgh', *Post-World War II Development: Volume I 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹¹⁴ David Daiches, *Edinburgh* (London: Hamilton, 1978), p.233.

Chapter Three

Planning debates: new urban forms and their implications for George Square

Introduction

The City of Edinburgh enjoyed great glories and was beset by considerable problems. 'Disorder' in urban development, the coordination between industrial development and development of other areas in the City in particular, was heavily criticised by scholars such as Patrick Geddes. In addition, reduced development control and neglect of maintenance of buildings furthered urban decay. In *The Civic Survey of Edinburgh* (1911), Geddes remarked: 'Sordid industrial districts surrounding – say, indeed, immersing – the old town and the planned new town alike, has thus grown in a vicious circle with the misgrowth of the railway system,... Edinburgh has become, as far as it could, an ordinary manufacturing town ... in characteristic perspectives of squalor and dreariness of homes, of monotonous confusion of mean street'.¹¹⁵ These problems were especially acute in the Old Town. Geddes observed of the Royal Mile: 'This mass of medieval and renaissance survivals has been, and too nearly is still, the most squalid conglomeration'.¹¹⁶ As Charles McKean argued: 'Geddes believed that cities could be studied comparably to animal or insect communities and that, like them, humans would change according to their density, and their access to light and fresh air'.¹¹⁷ Geddes was actively promoting his planning approach and his comprehensive surveys led to rational actions. Meanwhile the Improvement Schemes of the City Council, dating from the 1860s, were approved to visually enrich and

¹¹⁵ Patrick Geddes, *The Civic Survey of Edinburgh, with illustrations by F.C.Mears, reprinted from the Transactions of the Town Planning Conference* (London, 1911), p. 562.

¹¹⁶ Patrick Geddes, *Cities in Evolution*, new and rev. edn (London: Williams & Norgate, 1949), p. 5.

¹¹⁷ Charles McKean, *Edinburgh: portrait of a city* (London: Century, 1991), p. 205.

improve the hygiene of the City. The suspension of housing construction around the First World War aggravated the housing shortage, as in 1911, '... the extent of overcrowding, approximately 33 percent, was on a par with the worst housed areas of England on Tyneside and London East End'.¹¹⁸ Although construction of some new houses in the interwar period improved the situation and Edinburgh was acclaimed as having the lowest percentage of overcrowded housing in Scotland in the 1930s, the suspension of housing programme again during the Second World War left a serious problem of housing shortage.

Despite some fragments of heroic manifestation of planning ideas, such as Robert Adam's South Bridge scheme two hundred years previously, there was no plan in place which considered the City as a whole – in any event not since the planning of the New Town. This was also the case with the University of Edinburgh, which did not possess any master plan. Around the 1940s, the voice for comprehensive planning gained strength in Edinburgh. This chapter will investigate the efforts made around the period of the second world war for planning the City of Edinburgh and the connection this has with the controversy that developed relating to the University's redevelopment of George Square as its central campus.

1. Mears, Clyde Committee; Sir Patrick Abercrombie and the comprehensive planning of central Edinburgh in the 1940s

In 1924, Frank Mears, following the inspiration of his father-in-law, Patrick Geddes, suggested the City Council should consider re-planning the City as a whole.¹¹⁹ He

¹¹⁸ Richard Roger, 'Crisis and confrontation in Scottish housing, 1880-1914' in *Scottish Housing in the twentieth century*, ed. by Richard Roger (Leicester: Leicester University Press, 1989), pp. 25-53 (p. 27).

¹¹⁹ Cliff Hague, 'The changing role of the planner before and after the Second World War and the effect on urban form' in *Edinburgh: The making of a capital city*, ed. by Brian Edwards and Paul Jenkins (Edinburgh: Edinburgh University Press, 2005), pp. 168-79 (p. 171).

was invited to be a member of a committee set up by the Lord Provost to consider the planning of the city centre of Edinburgh, but soon became dissatisfied with the indecisive City Council and criticized the administrators for having no overall vision and for failing to give professional guidance.¹²⁰ Mears started drawing his own lines for the city centre despite the actions of the local authority. He diagnosed the condition of the Old Town:

As a result of unrelated placing and growth, many of these institutions are to-day in difficulty in the matter of expansion. Moreover the Municipality, the Courts, libraries, Heriot-Watt College and Museums, are equally crowded together, so that again we find from North to South a continuous series of public buildings between the High Street and the Meadows. Everywhere through the area are patches of decaying dwellings – breweries and workshops large or small, and badly arranged streets.¹²¹

To improve this situation, in which important educational and administrative institutions were suffocating within unsightly areas of small industries and low rent tenements, he proposed three zones in the central area for, business, administration and education. These would constitute a Business Mile, the Royal Mile and the College Mile respectively (figure 3.1). The Business Mile and the Royal Mile already had their origins in two existing streets, Princes Street, in the New Town, and the High Street, in the Old Town, whilst the College Mile was to provide a better setting and closer coordination between the major educational institutions, notably, the College of Art, the Royal Infirmary, Heriot-Watt College and the University of Edinburgh. Mears' idea for the coordination of different institutions in the City was,

¹²⁰ Ibid., p. 171.

¹²¹ Frank Mears, *Preliminary suggestions prepared for considerations by the representative committee in regard to the development and re-planning of the central area of the city on relation to public buildings* (Edinburgh: The City of Edinburgh and Town Planning Institute, 1931), p. 5.

in many ways, a precedent for the plans for other cities in Britain, such as the plan of the Centres of Culture, Education and Medicine in Manchester of 1945 (figure 3.2).

The central element of Frank Mears' College Mile was a new University avenue. It started on the west at the University's McEwan Hall. Mears considered that the existing triangular square, in front of the Hall, (figure 3.3) was unsatisfactory and he suggested: 'The street be widened considerably at its western end so as to afford space in the centre of the projected University Chapel, and to open up a view of McEwan Hall and the University Union on either side'.¹²² He also planned a new University Library and a Chapel beside the McEwan Hall, so that the four University buildings, McEwan Hall, Library, Union and Chapel, would form a strong cultural focus for the avenue. From this point, toward the east, the existing streets would be widened to allow similar gardens to those at Nicolson Square to be formed. Some slums, in the Richmond area, would be cleared for a new University building which was proposed to give this avenue a more distinguished termination. In addition, houses besides Salisbury Square would be demolished, since they blocked the view from this building towards the natural landscape of Salisbury Crags.

Apart from the University avenue, the areas of breweries and working-class tenements to the east of Nicolson Street – the High School Yards – would be replaced in order to open up a grand view of the monumental façade of Old College – something that Robert Adam had not been able to accomplish. During the eighteenth century, the Royal High School and Royal Infirmary had been established here. The old University precinct – the Kirk-of-Field and High School Yards – was originally one continuous site. After the 1780s, they were separated by the newly-built artery, Nicolson Street. In 1879, the Royal Infirmary found its new home in Lauriston Place and some Science departments in the University had overspilled from the

¹²² Mears, p. 7.

overcrowded Old College to this site. Following the foundation of the headquarters of the Faculty of Science, at the King's Buildings during the 1920s, only Physics stayed in the High School Yards. Over the years, it became a 'back garden' of surrounding little shops, restaurants, pubs and small industries. It was always regarded as a shame to have such a back garden close to the grand façade of Robert Adam's Old College. Mears proposed a series of gardens to take advantage of the uneven site, simultaneously allowing the University's foot-print to expand eastward through a series of inter-connected quadrangles.

It is worthy of note that Mears had the intention of lining up the green spaces on the South Side, the Meadows and George Square, with the tree planted streets at the Salisbury Park. He probably thought that these boulevards, with their important connections at intervals, could lighten up the dark and drab streetscape prevailing in this area. Furthermore, the existing road pattern would be modified so as to relieve the traffic congestion within the areas of the three designated Miles. In Mears' Report, the West Port, the Grassmarket, the Cowgate and the Holyrood Road were lined up to form a west-east running artery, while the Pleasance was connected with the Leith area by a new bridge and an underground tunnel in order to create a north-south highway.

But during the economic crisis of the early 1930s, his plan was regarded by the consultants to the City Council as too ambitious and impractical.¹²³ Contrary to Mears' proposal for rebuilding a strong urban identity through the three designated Miles, the inter-war period experienced a boom in suburban housing construction, stretching the boundary of the City to the west and south (figure 3.4). Nevertheless, it can be argued that Frank Mears, together with Patrick Geddes, in their roles as pioneering architect-planners, promoted the ethos of comprehensive city-planning

¹²³ Cliff Hague, *The Development of Planning Thought: a critical perspective* (London: Hutchinson, 1984), p. 178.

which significantly changed the City of Edinburgh and the form of the University. Six years later in 1937, ideas conveyed in Mears' plan was re-presented in the exhibition of an urban survey of Edinburgh undertaken by members of staff and students of the College of Art. Included was Robert Matthew who, as we shall see, was to make his own pioneering contributions.¹²⁴ The exhibition raised wide concern amongst various public groups regarding the issue of city planning in Edinburgh. The City Council, whose ad hoc policies allowed the continuous suburban sprawl, was heavily criticized by the public bodies, for its failure to work out a plan for the consistent development of the City.

Under such circumstances, the City Council set up in 1943 an Advisory Committee – the Clyde Committee – which included three figures: J. L. Clyde (Lord Clyde in 1954), Thomas Whitson, the former Lord Provost, and Donald Pollock, Rector of the University of Edinburgh. The remit of the Committee was:

To survey the influences which have tended to the creation of the existing character of the City and its place in the national and local administration, the extent to which these influences are still operative and the circumstances and considerations which now exist and which may be anticipated to arise.¹²⁵

The task of the Committee was primarily to make suggestions, rather than to propose a physical plan. The Committee considered one of the primary problems of the development of Edinburgh to be how to decongest the City while retaining its identity. The members appreciated that continuous suburban expansion was undesirable as 'it seems clear that Edinburgh in the future will become the hub and centre of an ever-growing wheel of commercial activity beyond the present confines

¹²⁴ Ibid., p. 184.

¹²⁵ *Report of the Advisory Committee on city development* (Edinburgh: City Corporation of Edinburgh, 1943), p. 3.

of the City. In view of this development a simple process of decentralization would only produce confusion in the suburban areas'.¹²⁶ They suggested that educational, commercial and residential functions should be kept in the City while industry would be gradually moved out to the suburbs. They emphasized: 'The treatment of each is dependent upon the treatments of the others, for none of them can be considered in isolation'.¹²⁷ And they recommended that the plan for the City should be made 'with a view to ascertaining what religious, educational, industrial, social or recreational facilities are required or are surplus to the needs of each area'.¹²⁸

Two tendencies in city planning were recognized by the Clyde Committee. The first one, the conservative view, was that the planning of Edinburgh should wait until the Government's decisions on planning policy were formulated, as 'if Edinburgh would just wait, it would get its proper share in the general scheme'.¹²⁹ On the other hand, there was the idealist view that the City should be planned for fifty years or more and be developed by 'adoption of 'the broad view' and 'aiming high''.¹³⁰ The Clyde Committee was opposed to each of these two tendencies. For them, the disadvantage of the first tendency was that hesitation would lead to the loss of opportunities for the City, whilst the danger of the latter was that the so-called 'revolutionary' proposals 'sought to mould the City into a pre-conceived plan, instead of adjusting the plan to fit a living and growing community'.¹³¹ They suggested that a long-term policy be formed by the Council and reviewed every three years with the public being kept informed of the changes in this policy. As the first step towards the policy, the Committee had made recommendations for immediate action. These recommendations can be categorized into four major respects: housing, road, education and industry. They suggested sites within the city boundary be found for

¹²⁶ Ibid., p. 10.

¹²⁷ Ibid., p. 11.

¹²⁸ Ibid., p. 37.

¹²⁹ Ibid., p. 6.

¹³⁰ Ibid., p. 6.

¹³¹ Ibid., p. 6.

creation of self-contained communities. The road system, as the Committee argued, should be improved to facilitate development of public transport and to incorporate the city by-pass road and a green belt. For education, the Committee called for 'a co-operation with the University in order to complete a scheme for the Academic area of the City and the consequent redevelopment of that area'.¹³² In addition, new industries should be invited to Edinburgh and existing industries should be encouraged to move to the outskirts of the City, but with the care for the relationship between working and living.

The Clyde Report received positive feedback from the Council and the professional bodies.¹³³ However, there was no immediate resolution to carry the work of the Clyde Committee forward. Although Mears was commissioned to draft a regional plan which included Edinburgh, and submitted his *Regional Survey and plan for central and south-east Scotland* in 1947, '[his] regional plan did not attempt to plan the internal structure of Edinburgh'.¹³⁴ Such a mission was undertaken by Patrick Abercrombie in 1949.

As a distinguished planner, for example of the well-known County of London Plan (1943) and the Greater London Regional Plan (1944), Patrick Abercrombie was invited to give his expert suggestions for the planning of Edinburgh under the newly created 1947 Town and Country Planning Act. He made a comprehensive civic survey of the City of Edinburgh with Derek Plumstead, the City planning officer. In 1949, they submitted their report, *A Civic Survey and Plan for the City of Royal Burgh of Edinburgh*.

Abercrombie introduced zoning to Edinburgh (figure 3.5), the principle so central in

¹³² Ibid., p. 37.

¹³³ Hague, p. 201.

¹³⁴ Ibid., p. 204.

the Athens Charter of 1942. He suggested:

In this general sorting out, there will be an opportunity of avoiding conflicting use, which is so frequent in an ancient city, where we see a palace hemmed in by breweries, houses overshadowed by factories or railway shunting yards, industrial buildings prevented from expansion by housing, commercial shopping centres thronged with through traffic.¹³⁵

The 'Functional City' of the Athens Charter comprised four major zones: Living, Working, Recreation and Circulation. Abercrombie's zoning was more comprehensive than that of the Mears' 1931 plan which only identified the exclusive territories for the national and local institutions. In the housing zone, the density of the population would be determined to avoid overcrowding. In the industrial zone, the development of industry would no longer be hemmed in by the surrounding residences or cause pollution and noise to the residents. The cultural zone would guarantee that facilities, like the University, would be kept away from traffic disturbance and commercial encroachment. Part of the Old Town, between the Royal Mile, the Meadows, the Lauriston Place and the Pleasance, was allocated to the cultural and administrative zone. This zoning proposal was approved by the City Planning Committee in December 1950.

For the planning of the central area of the City, Abercrombie concentrated on five urban and social aspects:

(1) Improvement of the road pattern of the inner city

He proposed a three-decked road system for Princes Street. In this system, the uppermost level was the existing street and the middle level served as a car park

¹³⁵ Patrick Abercrombie, and Derek Plumstead, *A civic survey and plan for the City and Royal Burgh of Edinburgh* (Edinburgh: Oliver and Boyd, 1949), p. 45.

while the lowest level would be a by-pass for all-through traffic. In addition, like Frank Mears, he proposed a north-south running road between Nicolson Street and the Pleasance (figure 3.6). Thereby, an inner ring (Princes Street – Lothian Road – Melville Drive – new road) would be formed in order to alleviate the traffic congestion of the city centre.

(2) Reconstruction of Princes Street (figure 3.7)

Over a period of almost two centuries, the original residential function of the New Town had gradually changed. He observed that the domestic architectural homogeneity of James Craig's Princes Street had been eroded by uncontrolled developments through the nineteenth century. Abercrombie proposed that the area should be gradually transformed to accommodate exclusive office and commercial uses, since the grid-iron plan ideally fitted the requirements of modern commercial activities. An urban framework was suggested by Abercrombie which consisted of a mezzanine, similar in effect to the Rue de Rivoli in Paris. However, Abercrombie conceived that the framework would allow freedom for the design of individual shops so that monotony of the Rue de Rivoli could be avoided.

(3) Improvement of Royal Mile

Abercrombie divided the street into three sections, the Lawmarket, High Street and Canongate. The first two would be the zone of administration and commerce while the latter would be residential, separated from the two by a new proposed road (figure 3.8). He thought this would solve the problems brought by the highly mixed uses which had accumulated through history.

(4) Establishment of the Festival Centre

After fully acknowledging the importance of the cultural precinct, Abercrombie argued that a new Festival Centre should be built, giving the focus for the

blossoming International Festival which began in 1947. The sites he chose were the Usher Hall and St James Square (figure 3.9). Geographically the two centres, one on the west and the other on the east, would greatly enhance the identity of Edinburgh as a 'Festival City'. The Usher Hall was suffering from the propinquity of surrounding industry and railways, whilst the St James Square was primarily a residential area which had experienced little improvement since being constructed in the late eighteenth century. The building of the Festival centres would therefore provide opportunities for reconstructing these two derelict areas.

(5) In the Abercrombie Report, the University occupied an important chapter. It was conceived as the core of the cultural and administrative zone. By the time of his proposals, the University had already launched its own actions for the planning for its future. In 1946, Charles Holden put forward an advisory plan for the University precinct which stretched from Chambers Street to the Meadows. Abercrombie included Holden's proposal in his plan and made an architectural analysis of the George Square buildings. In his survey of the heritage of the City, the front of the buildings around George Square was rated as 'worthy of preservation'. Comparing George Square with Charlotte Square, Moray Place and Anne Street, Abercrombie argued that George Square was not a masterpiece of Georgian architecture. In terms of the proportion of building height to the width of the garden (figure 3.10), it was proposed that George Square could be subject to future intervention and development. Abercrombie argued: 'Though it is hoped that it might be possible to make use for many years of the existing buildings on these other three sides, they should not stand in the way of a good architectural scheme with the total transference of the square to University use'.¹³⁶ Abercrombie's view was shared by Basil Spence and Robert Matthew, who were appointed as architects to the University later in the 1950s. They emphasized that it was the atmosphere of the garden which was worthy of

¹³⁶ Abercrombie, p. 59.

preservation, not the architecture of George Square. During the following two decades, Abercrombie was frequently referred to by the University as the expert in order to defend its redevelopment project against criticism from outside.

Abercrombie also gave careful consideration to suburban development and the distribution of industrial activity within the City. For example, he proposed a Containment Policy for Edinburgh which would confine the population at 453,000. However, opposition to his plan was emerging in the newspapers and public media. It was argued by some people that Abercrombie's plan was driven by the inspirations and experience of the vast postwar reconstruction of bombed cities in Britain and was not appropriate to the circumstances of Edinburgh which had suffered little damage from the War. Although Abercrombie's plan was generally approved by the City Council, revisions were made to turn his ideas into a statutory plan which would allay the criticisms from the interested people and public bodies.

In the 1953 City Development Plan, the inner ring road proposed by Abercrombie retained only the east Bridge Relief Road and Melville Drive in the proposed map (figure 3.11). Other major revisions were to relax the restrictions laid by Abercrombie in the Containment Policy, on industrial zoning and residential density. A public enquiry for this Development Plan was held by the Secretary of State for Scotland in 1954. Thereafter, opposition decreased significantly from 63 to 12 protests, which was voiced by 'a disparate collection of landowners whose interests were adversely affected'.¹³⁷ The Development Plan was consequently approved by the Secretary of State in 1957.

The sequence of events relating to the planning of the City of Edinburgh from the 1930s to the 1950s may be summarized as follows: Mears made a plan independently;

¹³⁷ Hague, p. 218.

the City Council ignored Mears' plan and commissioned the Clyde Committee; Abercrombie undertook an exhaustive survey and formulated a comprehensive development plan; objections were made to Abercrombie's plan, resulting in approval of the Development Plan of 1953; there was gradual acceptance by the City Council of the necessity for comprehensive planning but reluctance to fully commit to an ambitious comprehensive redevelopment of the City. It was recognized that the piecemeal and uncontrolled development that was encroaching upon the cultural facilities of the City was intolerable. At the same time, the fact there was little war damage combined with the diverse interests from different groups of people in the City, induced in the City Council a sort of reluctance to take risks radically to change the status quo.

Compared with the Mears' and Abercrombie's plans, the Clyde Report was more acceptable to the City Council and the public bodies. The suggestions in the Report did not give rise to any profound physical changes to the fabric of the City. Its suggestions were seen as being of a sufficiently general character as to preclude any form of pre-conceived and personalized vision to which the local authorities were sensitive. John Ireland Falconer, the Lord Provost 1945-48, remarked in the *Introduction* of the Abercrombie Report: 'One cannot be said to plan the City of Edinburgh'.¹³⁸ Further in the Preamble, there were the following words: 'A plan for Edinburgh must needs be a hazardous undertaking: there can be few cities towards which the inhabitants display a fiercer loyalty or deeper affection, feelings which have existed in the past and which persist today. The planner who dares to propose improvements must go warily'.¹³⁹ This kind of mentality formed a backdrop to the planning debates bearing, upon George Square, that extended through the following two decades. In the book, *The Making of Urban Scotland*, Ian H. Adams discusses this mentality:

¹³⁸ Abercrombie, p. x.

¹³⁹ Ibid., p. 1.

Edinburgh's danger was of choking on complacency: 'Edinburgh is a Capital City', declared a town council memorandum, 'it is not a competitor of any other City. It does not seek to model itself upon any other city. It wants to be what it has been, but only more so'.¹⁴⁰

A point upon which all the various interested groups of people agreed was the importance of the cultural institutions to the wellbeing of the City. Concerted efforts should be made to make further improvements. In particular, these three reports all saw the University as the 'enlightening' factor which could free the City from the darkness, dirt, indifference and ignorance of the previous laissez-faire society, just as it had done during the Scottish Enlightenment. However, at the nature of the challenge of how to develop the University in the city centre, these plans and reports implied different and somewhat opposite approaches. Mears was concerned less with the technical aspect of planning than with the creation of a perspective effect within the urban landscape. This was quite different from Abercrombie's approach. Although Mears designed three so-called Miles, there was no indication of what would be done to the areas between these three Miles. This would not fundamentally change the mixture of cultural facilities and housing and industry – a situation which Abercrombie heavily criticized as one reason for the urban problems prevailing in Edinburgh. Moreover, in terms of its architecture, Mears treated George Square differently from Abercrombie, as he commented: 'This beautiful space is fast becoming one of the principal quadrangles of the University. The houses on the eastern, western and southern sides may probably serve for long periods as hostels and residences for the University staff'.¹⁴¹

These divergences of opinion, and the mentality of the local authority, were to

¹⁴⁰ Ian H. Adams, *The making of urban Scotland* (London: Croom Helm, 1978), p. 211.

¹⁴¹ Mears, p. 11.

underlie the planning debates between the University authorities and conservation groups bearing on the University's development, whose central precinct was George Square.

2. Planning debates concerning the development of George Square

George Square was created as a residential area. It was founded in 1766 by James Brown at a period when wealthy people were moving southwards from the cramped Old Town (figure 3.12). George Square formed a fine contrast with the medieval Old Town. The rectilinear planning and large open space of the Square shared the same concept with the New Town on the north. In 1779, Hugo Arnot commented the architecture of the Square: 'The houses on the east and west sides are handsome buildings, of a good and regular height, of free polished stone'.¹⁴² With its tranquility, easy access to the Meadows on the south, close association with the University colleges and churches in the Old Town, George Square soon became the hub for bourgeois activities and the home for scholars, especially figures of the Enlightenment such as David Hume and Walter Scott. Henry Cockburn (1779-1854), a graduate of the University of Edinburgh and an influential judge, had the following comment upon the Square, recorded by W. N. Boog-Watson:

There has never in my life been any single place in or near Edinburgh which has so distinctly been the resort at once of our philosophy and our fashion. Under those trees walked and talked and mediated all our literary and scientific and many of our legal worthies.¹⁴³

Since the late nineteenth century, various institutions such as George Watson's

¹⁴² Hugo Arnot, *The History of Edinburgh* (Edinburgh: Printed for W. Creech., and J. Murray, London, 1779), p. 324-25.

¹⁴³ W. N. Boog-Wat, 'George Square, Edinburgh, 1766-1966', *University of Edinburgh Journal*, 22 (1966), 239-50 (pp. 240-41).

Ladies College, in 1876, and the Edinburgh and East of Scotland College of Agriculture, in 1904, were established in George Square. The University authorities had also acquired some properties in George Square because of its proximity to Old College and the Medical School. They refurbished them to serve as halls of residences and accommodation for the Department of Forestry in 1911. By the Second World War, the University had become the biggest property owner in the Square.

Faced with the pressure of expanding university teaching, following the Second World War, the University authorities resolved to have new constructions located in the city centre. Their idea of the 'proper' setting for new constructions was that the Faculties of the University should be grouped in a single neighbourhood with 'centrally situated college squares and gardens'. This expressed an inherited aspiration for the collegiate environment. To the University authorities, the spacious rectangular garden of George Square provided just such an opportunity. In January 1944, William Oliver, Convenor of the Works Committee and a member of the University's Postwar Development Committee, recommended that 'a Master Plan be drawn to which all future university developments should conform and so gradually achieve a balanced and co-ordinated structure in which the several Faculties and subjects will be appropriately placed in relation to one another'.¹⁴⁴ He proposed that the Science departments be brought back to the city centre and 'along with other Medical and Arts departments, be provided for by a great building scheme to occupy the whole of George Square'.¹⁴⁵ In 1945, this proposal was then approved by the Senatus and the University Court.

¹⁴⁴ 'Abstract of a Memorandum by Professor William Oliver approved by the Committee of the Senate on post-war planning, January 1944', *Post-World War II Development: Volume I 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁴⁵ 'Minutes of a meeting of the University Court of the University of Edinburgh on March 20th 1944', *Post-World War II Development: Volume I 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

But the Clyde Committee had a different view. Inspired by Mears' College Mile Plan, they recommended the High School Yards as an alternative to George Square.¹⁴⁶ Responding to the Clyde Committee's suggestion, William Oliver submitted his report based on the comparison of the relative advantages between the High School Yards and George Square. After investigations and calculations, he argued that George Square would be a much better setting for higher education than the High School Yards in four respects:

(1) The High School Yards was separated from Old College by Nicolson Street which would cause great inconvenience to the communications between university departments on both sides of the main artery. George Square did not have this problem as 'the site admits of the full development of the Science and Medical Schools as well as certain Arts departments, grouped in such a way as to enable full co-operation between related subjects and Faculties'.¹⁴⁷ Also, the noise in the High School Yards area was a considerable distraction for the conduct of higher education;

(2) Compared with the High School Yards, George Square would allow more space for development of the University as the demand for expansion would certainly increase in the future. Oliver argued, 'the area behind the south side of the Square lying between Buccleuch Place and the Meadows provides admirable space for the possible future development of a Students' Hall of Residence with existing property readily adaptable for this purpose'¹⁴⁸;

(3) The topography of the High School Yards was a challenge for the architects. This

¹⁴⁶ 'University development and George Square', *University of Edinburgh Journal*, 19 (1960), 232-48 (p. 233).

¹⁴⁷ 'Notes by Professor William Oliver on Drummond Street and George Square sites for University development, April 1944', *Post-World War II Development: Volume I 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁴⁸ *Ibid.*

site, which was bounded by old city wall, is dramatically sloping from south-west to north-east. Historical developments on this site left different levels of foot print and a sunken area besides the tenements of South Bridge. Compared with George Square, this site, Oliver observed, would cause serious technical difficulties;

(4) Unlike in the High School Yards, the University was a substantial property owner in George Square, making it much easier to start the development scheme and participate in the growing movement of university expansion within the UK. The Clyde Committee did not have further comments to make on this report.

In 1945, the University authorities decided to seek the expert advice of a distinguished architect. Charles Holden, the architect from London, was duly appointed as the University's advisor on planning. Under his direction, the houses in George Square would be reconstructed for accommodation of the Faculties of Medicine and Science, whilst the areas to the south of the Square, in Buccleuch Place, would be developed into hostels for members of staff. In his plan, Holden conceived the main entrance of the new campus to be on the east side of the Square. The west side of George Square would be replaced by a symmetrical building drawing much of its inspiration from Holden's earlier Senate House of the University College London in 1931 (figure 3.13). The Portland stone material, and application of a grand scale, would give the whole plan a rigid and monumental classical expression (figure 3.14). To the north of George Square, the area between Bristo Street, Lothian Street and Potterrow, was assigned to the Student Union, University Administration and the new Main Library. This area had been built by James Brown in the 1770s and 1780s, at the same time as George Square. But the buildings in this area were then in a run-down condition due to vandalism and lack of maintenance induced by the 'profiteering letting'.¹⁴⁹ The Rector of the University, Donald Pollock¹⁵⁰ had

¹⁴⁹ Alistair Rowan, 'Parker's Triangle', in *Forgotten South Side: the problems of planning blight in city centre living; a plea for action*, ed. by University of Edinburgh. Rector's Working

purchased some properties in this area. His idea was that:

Part of the area is to be cleared to make an open space of garden around the Hall; other parts will have the interiors of the buildings reconstructed to form well-lighted sets of rooms of convenient sizes for various student societies...

[The] ultimate project for this area is one of the enlarged and consolidated premises for the University Union and the University Women's Union, perhaps as a combined institution for all students.¹⁵¹

As the major private benefactor to the University, Donald Pollock was enthusiastic about conservation of George Square. As Donald Wintersgill described: 'Pollock wanted George Square, near the heart of the city, to become a centre for halls of residence'.¹⁵² Instead, the University authorities were considering alternative sites for student accommodation. A site between the King's Park and Dalkeith Road, a mile from George Square, had been purchased by Pollock from the publisher Nelsons. It was of 25-acre with three existing properties, St-Leonard's House, Salisbury Green (figure 3.15) and Abden House, which he donated to the University for residential purposes. The University authorities resolved that 'steps should be taken at the earliest date to make it possible for every full-time student to spend at least one year of his or her university career in a Hall of Residence'.¹⁵³ By 1950, the architects in charge, William Kininmonth, had drawn a plan which was expected to accommodate

Party on Planning and Helen Peacock (Edinburgh: Edinburgh University Students Publications, 1974), pp. 32-33 (p. 33).

¹⁵⁰ Sir Donald Pollock, the Scottish physicist. In 1936, he established the Donald Pollock Trust to provide funding for the religious, philanthropic and educational purposes in Edinburgh. He was the Rector of the University of Edinburgh from 1939 to 1945. He was the enthusiastic supporter to the enhancement of the students' welfare in the University's expansion around the Second World War. He set up the Pollock Development Trust in 1943.

¹⁵¹ 'University News: The Rector's Benefaction', *University of Edinburgh Journal*, 12, Summer 1943, p. 68.

¹⁵² Donald Wintersgill, *The Rectors of the University of Edinburgh 1859-2000* (Edinburgh: Dunedin Academic Press, 2005), p. 113.

¹⁵³ The University of Edinburgh, *Building sites – Salisbury Green: official statement of university policy* (Edinburgh, 1951), p. 1.

1,000 students (figure 3.16).

In April 1946, the University Court submitted Charles Holden's proposal to the City Council for planning permission. The University's plan was regarded by some people as vandalism as they regarded George Square as being nothing less than a piece of architectural heritage deriving from the Georgian period. Protests were led by the conservation groups which included the National Trust for Scotland, the Cockburn Association and the Saltire Society. They suggested that the houses in George Square should be conserved and transformed into university residences for staff or students, as Frank Mears had recommended in 1931. It was a shared view of the protesters that developing the communal life for students and members of staff was of the highest priority in Edinburgh. H. J. C. Grierson, Professor of English Literature at the University, commented: 'No university in the world is so devoid of corporate life as the University of Edinburgh'.¹⁵⁴ They restated the possibility of the High School Yards as the alternative site to George Square for new university teaching accommodation.

Those comments and suggestions were not acceptable to the University authorities. Firstly, they argued that the teaching environment had equal importance with accommodation for students and staff. The prime requirement of the University of Edinburgh, they argued, was the concentration of the Faculties, particularly of Medicine and Science since it was the good quality of the teaching environment which attracted good staff and students – not student accommodation. Secondly, they were convinced that the 'best architectural treatment of new buildings would contribute to the life of the University and to the distinction of the City'.¹⁵⁵

¹⁵⁴ H. J. C. Grierson, 'Edinburgh University and George Square, Development Corporate Life', *The Scotsman*, 23 January 1947, p. 4.

¹⁵⁵ 'Proposals for the future development of the University of Edinburgh', *Post-World War II Development: Volume III 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

Responding to the proposal for an alternative site, the University authorities referred to the comparison being made by William Oliver and argued that the High School Yards would 'rule out any possibility of an integrated, harmonious and impressive layout; the commercial interests in that area could not create a true university precinct but a series of university areas surrounding and intermingled with other property'.¹⁵⁶

Negotiations continued between the University authorities and the protesters in 1947 and 1948, but no agreement could be achieved. The planning decision was made three years after the University authorities' submission. On 3rd February 1949, the City Council gave general approval for the extension of the Medical School in the north side of George Square, subject to three conditions:

- (1) 'The University undertake to consider an alternative scheme or schemes which do not contemplate the destruction of the façade of the other three sides of George Square';
- (2) 'The arrangement under which the present scheme for the North side of the Square is approved, commits neither the Corporation nor the University to the original George Square scheme, as discussed in earlier negotiations between parties';
- (3) 'The University undertakes that they will not seek from the Corporation approval of any scheme contemplating alteration on the other three sides of George Square unless and until they are satisfied that such a proposal is the only method by which such a satisfactory scheme is possible'.¹⁵⁷

¹⁵⁶ Ibid.

¹⁵⁷ 'University Development and George Square', *University of Edinburgh Journal*, 19 (1960), 232-48 (p. 2).

This compromise decision was probably coloured by the same year's public reactions against the Abercrombie Plan which incorporated Holden's proposal for George Square. For this decision, the Lord Provost, Andrew Murray remarked: 'I take it that there will be no public objection to the rebuilding of the north side of George Square if we can protect ... the other three sides. I feel that this arrangement will be to the general satisfaction of all citizens'.¹⁵⁸ Although it appeared to be in favour of conservation, as Condition no. 1 indicated, Condition no. 3 implied that if the University authorities found reconstruction would best suit their needs for development, there would be an opportunity for them to repeal the 1949's planning decision.

In the late 1940s, a conservative tone prevailed and the ambitions of the University authorities were temporarily suppressed. In order to attract more informed suggestions for university development, in 1949, the University authorities carried forward the Medical School extension by holding an open architectural competition. The participating architects were required to consider their entries not only to provide maximum accommodation for teaching but also to make them harmonious to the façade of the other three sides of George Square. A. G. R. Mackenzie, President of the Royal Incorporation of Architects in Scotland (RIAS) was recommended to be the Assessor by the Royal Institute of British Architects (RIBA). Response was dramatic and 39 entries out of many proposals were selected for the final judgment. In early 1951, the result was announced with the winning entry (figure 4.26 & 4.27) being the design by Walter N. W. Ramsay, a Glasgow based architect and a member of staff at the Glasgow Royal Technical College. The report of the assessor was as follows: 'The author of No. 6 placed first, has designed a façade to George Square which while not in any way reproducing the existing eighteenth century domestic

¹⁵⁸ 'Edinburgh University Extension: Town Council's compromise on George Square', *The Scotsman*, 7 January 1949, p. 5.

architecture, yet is entirely in harmony with it, so that the general character of the Square may be maintained'.¹⁵⁹

In December 1950, the University authorities submitted their application for approval for the University Development Area (figure 3.17). This Development Area centred around George Square and was bounded by the Middle Meadow Walk on the west, Bristo Place on the north, Potterow and Buccleuch Street on the east and the Meadow Lane on the south. In the application, the University authorities stated: 'It is vital that the University should have, within the Town, its own precincts – a university quarter, in fact – providing accommodation for at least the bulk of its fundamental teaching as well as for its social life. These facilities would best be provided by grouping round a great quadrangle'.¹⁶⁰ The University authorities pointed to the visual attractiveness of a 'quadrangle' in justification of their occupation of George Square and the surrounding areas. The University's application immediately provoked opposition from the conservation groups. Although this planning application did not have any detailed plan concerning George Square, the conservationists were suspicious of every step by which the University authorities moved forward with their expansion scheme. They must have thought that once the Development Area was approved, George Square would be threatened with demolition.

In January 1951, angry inhabitants of George Square held an indignant meeting in the garden of the Square. The tone of the meeting was extremely nostalgic as it was reported: 'the trees in the Square gardens rustled their leaves and tossed their branches in sympathy. Dismay and unrest filled the dark hours of night'.¹⁶¹ One resident in No. 38 George Square said: 'I recollect one of the most interesting

¹⁵⁹ 'Scheme of extensions to Medical Buildings at Edinburgh University', *Building Industries and Scottish Architect*, February 1951, 54-56 (p. 56).

¹⁶⁰ *Application for approval for development area, summary of explanatory statement by the University of Edinburgh in December 1950*, The City of Edinburgh Planning Department Archives.

¹⁶¹ 'Indignation Meeting in the Square', *Evening Dispatch*, 12 January 1951, p. 8.

assemblages under my roof was when Cayley, Bierens de Haan, Lord Rayleigh, Salmon, Hermite, Picard, Cremona, Sylvester, and Thomson all dined here together'.¹⁶² These names were well-known scholars, ministers and photographers during the nineteenth century. Another resident argued: 'I can't believe it. Destroy US to make way for a pickle lath-and-plaster classrooms and concrete hostles!'¹⁶³ The protesters had a strong concern for the link between the architecture of George Square and the memories associated with it. They could not agree with the arguments of the University authorities, their architects and Patrick Abercrombie, that only the garden of the Square mattered. Some alumni of the University also joined the criticism. Janet Caird, the author, argued that: 'As a student at Edinburgh University, I lived for four years in George Square and have for it an abiding affection. It has always seemed to me that as a university, Edinburgh lacked one thing, that tangible link with the past which occupancy of an old and beautiful building provides'.¹⁶⁴ She expressed the view of the protesters that these old Georgian houses would strengthen the bond of affection of the students and surrounding community with the University.

In late 1950, Robert Hurd of the Saltire Society, an architect active in conservation, emphasized his interests in the article *University Extension Scheme*. Except for the argument of the importance of George Square to the culture of the City, like other protesters, he argued that the University development should not be isolated from the wider consideration of the City. He criticised the unwillingness of the University to deal with other possibilities which would be involved with more difficult situations than George Square. He referred to the areas like High School Yards once more:

In the area actually adjoining the Old College, and in that neighbourhood generally there are masses of unsightly, largely semi-derelict and totally

¹⁶² Ibid.

¹⁶³ Ibid.

¹⁶⁴ Janet Caird, 'George Square buildings', *The Scotsman*, 17 January 1951, p. 4.

uninteresting buildings crying aloud for demolition. Here is a great chance; no university or city could ask for a better. Edinburgh is full of difficult slopes to which generations of architects have accommodated their buildings with the happiest results.¹⁶⁵

Hurd tried to say that the university development should be considered together with the planning policies of other parts of the city centre, especially of slum clearance. He shared the view with Frank Mears that the university development provided an opportunity for beautifying the dilapidated cityscape. For him, it was unreasonable to reconstruct a place already possessing fine status while leaving slums untouched. He further questioned the necessity of organising the university buildings around the quadrangle and he argued, 'there is no reason whatever why a university should be quadrangular ... an existing quadrangle is not a pre-requisite for the erection of another'.¹⁶⁶ To raise this question, Hurd tried to undermine the logic of occupying George Square for teaching purposes but he did not give suggestions for an alternative way of building a new university precinct. Neither did he appreciate how closely British university development was linked with the collegiate tradition. Though the privilege of Oxbridge and its associated physical forms were challenged by radical educationists and architects,¹⁶⁷ the favouring of this tradition persisted. Many popular postwar campuses or university precincts derived from the notion of the quadrangle – for example, York University's colleges and Sussex University's Great Court.

In Edinburgh, the growth of the University was long associated with the idea of quadrangle. During the seventeenth century, the University expanded the original premise in the old Kirk-of-field and organised its houses around several courtyards,

¹⁶⁵ Robert Hurd, *University Extension Scheme* (23 December 1950), The City of Edinburgh Planning Department Archives.

¹⁶⁶ *Ibid.*

¹⁶⁷ 'The universities build', *The Architectural Review*, 134 (October 1963), 231-32 (p. 232).

though without any formal planning. It should be noted that Oxbridge was a paradigm for the founders of the new university, though, as Chapter Two has explored, various social and financial reasons restrained modelling the University along the collegiate line. The architect, Robert Adam, of the Old College in the late eighteenth century applied a similar approach to the buildings it replaced – rooms surrounding a void space, but with classical grandeur in style, scale, proportion and material. The gateway under the dome of the Old College served as the buffering between academic community within and society without so that Town and Gown could benefit from bilateral communications on the one hand and would retain their own identities on the other. This centuries' association determined the University's insistence on staying in George Square. It was the only place in the South Side which had a spacious garden in the middle and lower-density houses around, and was away from the major traffic routes – Nicolson Street and St Leonard's Street. The previous Principal of the University of Edinburgh, Thomas Holland, remarked: 'One cannot develop a general scheme in this part of the city without some drawbacks, but in this aspect fewer drawbacks seem to follow the plan of developing academic buildings around George Square'.¹⁶⁸ More generally about the university planning in the post-war era, Lionel Brett pointed out: 'There was no single tradition of university architecture'.¹⁶⁹ The general phenomenon was that university planning in post-war Britain became a personal taste – 'the attempt to establish its own aims and identity, and to plan for its own future'¹⁷⁰ – of the Vice-Chancellors and their architects.

Under the circumstance of mounting criticism, the local authority was unsure of the future of George Square. In February 1951, the City Council accepted the proposed

¹⁶⁸ 'Supplementary notes by Sir Thomas Holland on 5 July 1944', *Post-World War II Development: Volume I 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁶⁹ Nicolas Pevsner and Lionel Brett, 'Universities: yesterday and today', *The Architectural Review*, 122 (October 1957), 234-51 (p. 240).

¹⁷⁰ Bath University of Technology, *The proposed University of Bath, a technological university: Development Plan, report number 1* (Bath: the Bath University Press, 1965), p. 9.

University Development Area on condition that, if the University applied for planning permission for the reconstruction of the houses in the Square, at the same time they should submit an alternative plan for conservation. It seemed that the City Council tried to reach a balanced view by asking for two sets of proposals. By way of analysis, this decision, of giving dual responsibility to one side of the controversy, later proved to be problematic. The City Council also suggested that the houses in George Square be used for University residences. It appeared that the City Council agreed with the protesters' comments. However, their views were only a suggestion, not a requirement. Later the next year, the Assistant Secretary to the University succeeded in persuading the City Council to withdraw this suggestion by arguing in his letter: 'I am afraid that your suggestion that the property in the immediate vicinity of George Square should be used for residential purposes is not in harmony with the University's idea. Our intention is that the buildings surrounding George Square should eventually be applied to academic purposes'.¹⁷¹

In 1951, William Kininmonth, then architect to the University, submitted to the University authorities his sketch of an alternative plan for George Square. There was a possibility that he would like to 'demonstrate his flexibility [in face of] criticism from younger architects'¹⁷² in his design for the University Examination Centre (figure 3.30). He conceived a north-south axis by which a perspective effect from the north could be achieved of the flat dome of the McEwan Hall, through the George Square garden and the proposed main entrance of the campus in the south side of the Square to the Meadows (figure 3.18). This configuration was more harmonious with the gently north-south sloping topography of the site than Holden's design and would involve much less demolition than Holden's plan as there already existed an opening in the south side of the Square. Houses in the Square would be converted to

¹⁷¹ *The letter from Assistant Secretary of the University to the Town Council on 30 April 1952*, The City of Edinburgh Planning Department Archives.

¹⁷² Clive B. Fenton, 'Edinburgh University and the monumental tradition', *Edinburgh Architecture Research*, 26 (September 1999), 29-76 (p. 63).

teaching accommodation. Kininmonth stopped at this point without making further progress, probably because it was regarded by the University authorities as being too conservative and if they adopted this proposal, they would be conceding to the criticisms of the conservationists in the planning debate. The University authorities also did not pin their hope on Holden as he had not really spent much time studying the specific situation of the University. They commented on Holden's plan in their letter to the City Council in April 1952:

Although [Holden's proposals] contain the basic idea of the University's development plan, [they] do not necessarily show, either in plan or in elevation, the details of the University's future development ... there was no consultation between the various Departments concerned and Dr. Holden.¹⁷³

Around the mid 1950s, the circumstances of British higher education had changed from those of the 1940s. The impact of the school reforms, promoted by the Butler Education Act (1944), on the university started to take effect. From the middle of the decade, as the economy of the country gradually recovered from the effects of the Second World War, the government started to commit to a vast building programme of higher education. The University authorities were eager to find an architect who shared the same ethos with them and had time, ambition and determination to carry the university project through the difficult planning process. During the period between 1952 and 1954, the then Principal of the University, Edward Appleton, referred to his contacts in the RIBA and RIAS. Eight architects, including Patrick Abercrombie, William Holford, Hugh Casson and Basil Spence were shortlisted and interviewed. They were all influential professionals in Britain.

Among them Basil Spence was preferred. This Scottish architect was trained in the

¹⁷³ *The letter from Assistant Secretary of the University to the Town Council on 30 April 1952, The City of Edinburgh Planning Department Archives.*

Edinburgh College of Art between 1925 and 1929, and worked in the offices of Edwin Lutyens and Rowand Anderson before the War. During these formative years of the 1930s, he collaborated with William Kininmonth on various modern house projects and designed pavilions for Empire Exhibitions. He was interested in the tradition of Scottish architecture while enchanted with modern movement, as he metaphorised this relationship in a lecture in the University of Southampton in 1973: 'I have always tried to be traditional in the real meaning of the word – to build in one's own time, to serve the people living now – by being the fresh leaves on top of the old tree'.¹⁷⁴ Throughout his career, he was striving for an eclectic way of design. He had gained a reputation for his architectural practice especially with his pavilion design in the 1951 Festival of Britain Exhibition at the South Bank of London, later winning the competition for the reconstruction of Coventry Cathedral (1951) (figure 3.19). Spence believed that architects should create powerful architecture which could lead and change the public aesthetics. Spence's Scottish origins were regarded as valuable to the University authorities because he was familiar with the urban situation of Edinburgh. In March 1954, Basil Spence was appointed as the Consultant to the University, collaborating with the Internal Advisor, Robert Matthew who had studied at the College of Art with Spence and was renowned for his design of the London Festival Hall in 1951 (figure 3.20). Matthew, acclaimed as being a man of 'an air of leadership'¹⁷⁵, was provocatively involved in the government-driven social reconstruction when he held posts in the Department of Health for Scotland and the London County Council. Both of them – Spence and Matthew – were representatives of the new design trend of the 1950s, 'Festival Style'¹⁷⁶ in Britain. Like Matthew, Spence was 'a man with a vision who had the

¹⁷⁴ Basil Spence, *New Buildings in Old Cities: the second Gwilym James Memorial Lecture of the University of Southampton on the 23rd February, 1973* (Southampton: University of Southampton, 1973), p. 4.

¹⁷⁵ Miles Glendinning, 'National Internationalist: Robert Matthew and the Modern Movement', in *Architectural Heritage 9* (Edinburgh: The Architectural Heritage Society of Scotland, 1998), 51-62 (p. 52).

¹⁷⁶ The design concept of the exhibitions in the 1951 Festival of Britain was not innovative as

energy and commitment to carry it into action'¹⁷⁷, as Brian Edwards remarked in *Basil Spence, 1907-1976* (1995). These two architects and Edward Appleton formed a group, who, with their ambitions and determination, pushed ahead the expansion schemes of the University of Edinburgh in the following ten years.

Spence's remit was 'to deal with the questions relating to the planning and permanent development of the University's Central Development Area and inter alia, to advise the University Court on the siting of specific buildings, and eventually to prepare a General Development Plan'.¹⁷⁸ For Spence, Ramsay's winning design for the extension of the Medical School at the north side of George Square was not as satisfactory as A. G. R. Mackenzie had assessed it in 1951. In a meeting of the University Development Committee in November 1954, Spence expressed his conviction that 'partly because of the design of the New Medical Buildings, it was impossible to retain the original character of the Square and he considered that it would be possible to preserve only one side of the square with its present façade'.¹⁷⁹ He saw the potential of reconstruction with which the Square could be brought into more prominence in terms of architecture, as Abercrombie recommended in 1949. Spence's idea for the relationship between new and old was that 'the West side [of George Square] was flanked by the cliff of the Infirmary and the cliff of the Medical School as in the style of a cathedral close and the retention of the low west side with three higher sides would present great possibilities of effecting a striking architectural balance Future buildings might well be five storeys high without

the Russian Constructivists had already explored this idea in the 1920s and the MARS Group (Modern Architecture Research Group) brought modernism of architecture in Britain in the 1930s. But it was first time when this idea was generally accepted by the public in the exhibitions. And the Festival of Britain was widely regarded as the starting point of the 'Festival Style' design which prevailed for a decade in this country.

¹⁷⁷ Brian Edwards, *Basil Spence, 1907-1975* (London: The Rutland Press, 1995), p. 6.

¹⁷⁸ 'Minutes of the meeting of the University Development Committee of the University of Edinburgh on 11 March 1954', *Estates and Building*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁷⁹ Ibid.

endangering the architectural integrity of the Square'.¹⁸⁰ To Basil Spence, rigid classical architecture and the planning prevailing in the 1930s and 1940s should give way to 'good' modernist design which fitted modern times (figure 3.21). Lionel Brett, an influential architect and town planner in post-war Britain, elaborated this judgment of architecture in the article *Universities: yesterday and today* co-authored with Nicolas Pevsner in 1957:

Post-war university buildings [the Red Brick universities] are the monumental record of the failure of nerve in academic patronage, [an] envelope of red brick and stone, wrapping an entirely vacuous concept of who, what and where a university is. Radical action should be taken soon, and the more humane and adaptable approaches should be adopted which promise an integrated concept of a university and its buildings.¹⁸¹

In March 1955, Spence submitted his plan to the University Development Committee. He envisaged the grouping of horizontal blocks and vertical slabs to form a series of interconnected courtyards. Water and sculpture, together with trees would present a cloistered image (figure 3.22 & 3.23) – a similar one in his later work in Thurso High School (1958). Towers allowed the open space at the ground level for people to move around and overhead bridges connected different departments at the first floor level. He laid the emphasis particularly on the Main Library as it was given the highest priority by the University Court. He proposed its location at the southwest corner of the Square and a conventional hall at the northeast corner. This configuration was supposed to create a balance with the McEwan Hall to the north. This idea contrasted with the view of Frank Mears who proposed the Library adjacent to the McEwan Hall, in order to give this building a central location in the existing university area.

¹⁸⁰ 'Minutes of the meeting of the University Development Committee on 29 November 1954', *Estates and Building*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁸¹ Pevsner and Brett, p. 243.

These different approaches instigated later debates, concerning the location of the Library within and without the University, which are considered in the next chapter. For Spence, the Library was the academic focus¹⁸² of the university and should be given the best location in the proposed central precinct in George Square, although it would be distant from Old College. Meanwhile, Spence sketched out proposals for the development of the High School Yards where accommodation for Mathematics and Physics would be provided. His new slabs would be clad with glass, be transparent and rich in colours forming a great contrast with the dark surroundings that were depicted by his charcoal drawings (figure 3.24).

In July 1955, the University authorities submitted Spence's plan to the City Council and applied for planning permission for the Medical School extension and reconstruction of the other two sides of George Square. They did not submit the alternative proposal as requested, but explained that, after deliberation, the conservation of the houses in George Square was not possible if the University's requirements were to be met.

In a meeting with the representatives of the University on 13th July 1955, the officers of the City Planning Committee were reluctant to give consent to the Medical School extension 'without being in possession of facts relating to such future development'.¹⁸³ They felt that they could not consider this small part of the development without knowing the University's detailed proposals for the whole Square. Spence's plan was still a concept deriving from the specific policy of the University's expansion, rather than being a detailed vision. The University authorities had difficulty in working out a detailed schedule of accommodation. In a

¹⁸² It is worthy of notice that Spence's thinking is very odd here. The place for Main Library in George Square could not be central if it is at the south-most corner of the area.

¹⁸³ 'Minutes of the meeting of the Planning Committee of the City Council of Edinburgh on 13 July 1955', *Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 1, Special Collections, miscellaneous papers, University of Edinburgh Library.

letter to Liverpool University in 1954, the Secretary to the University wrote: 'At present, our Works Department is trying to supply Spence with estimates of area and so on, but I have a suspicion that we are setting about it in a wrong way'.¹⁸⁴

Nevertheless, Principal Appleton explained that the erection of new Medical buildings was part of a national urgent response to the need for expanding medical education, and further delay would cost the University substantial non-recurrent grants from the U.G.C.. Spence assured the planning officers that:

The new Medical buildings would harmonise with whatever development was ultimately decided on for the remainder of the north side of the Square... the façade of this extension should be 'softened' or 'humanised' by the addition of architectural details, such as balconies, which, by casting shadows, would break up the severe frontage.¹⁸⁵

Spence tried to further convince the planning officers of the desirability of future development of the east and south sides of George Square with photographs and sketches. Finally, the City Council granted permission for the erection of the first stage of the new Medical buildings. Their meeting came to the conclusion that 'were the University to be developed in a manner consistent with its needs, its reputation, and its position in the capital city, the preservation of George Square in its existing architectural aspects was not possible'.¹⁸⁶ So the City Council approved in principle the argument that it was necessary for the University to reconstruct the existing houses with the proviso that the western side, including Walter Scott's childhood

¹⁸⁴ 'A letter from the University of Edinburgh to Liverpool University on 12 November 1954', *Estates and Buildings: Development*, DRT 98/005, Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁸⁵ 'Minutes of the meeting of the Planning Committee of the City Council of Edinburgh on 13 July 1955', *Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

¹⁸⁶ Ibid.

home, would be retained. The Planning Committee required that further stages or phases of redevelopment of the north, east and south sides of George Square be subjected to detailed consideration in terms of layout, mass, density and the height of buildings.

During this meeting, the City Council also released the University authorities from the responsibility for drafting an alternative plan. Before this meeting, no serious discussions had taken place between the City Planning Committee and the University authorities about the alternative proposal, either in principle or details. The University authorities had already made their mind up early in 1944. With the exception of the comparison between George Square and the High School Yards by William Oliver in 1944, no further attempts had been made by the University authorities to explore other possibilities.

The views of the University, and the decision made by the City Council, were not entirely acceptable to the community at large. Opposition to Spence's plan for George Square was forcefully expressed in the public media. Conservation groups questioned why the University authorities did not submit an alternative plan. From the planning decision in 1955, it could be seen that the City Council's expectations of the alternative plan were quite different from those of the conservationists. The 1951 planning decision appeared to be a mere statement rather than a determination for resolving the confrontations between proponents for conservation and reconstruction. Debates in previous years had already established that no agreement could possibly be achieved in terms of architectural aesthetics and ethics. The debates between the two sides had exceeded the boundary of discussion between architectural design and touched on wider issues, such as the relationship between the City's slum clearance policy and university development. However, the previous planning decisions had shown that the City Council was reluctant to expand its consideration of the

university development beyond the limits of the architectural debate.

Some interested citizens proposed alternative plans for George Square. One argued: 'In my view, the only practical alternative to the George Square site is the Bristo site ... The Bristo scheme would for the present preserve George Square as a residential centre. If the Bristo scheme were adopted, the Old College [could be preserved] as a living part of the University'.¹⁸⁷ This area was what Frank Mears proposed to be the starting point of his College Mile. Mears' view had raised deep sympathy in the minds of the conservation groups and he was the expert to whom the conservationists frequently referred. During the ten years of debate from 1947 to 1956, various alternative sites were proposed. However, there was no attempt at making a general plan which would provide a common platform for the comparison with the University authorities' views and demonstrate that the conservationists' suggestions would be better than those of the University authorities for the university development.

These protesters hoped a Public Enquiry could change the planning decisions of the local authority. In July 1956, the Cockburn Association wrote to the Scottish Department of Health, requesting a Public Enquiry, specifically to consider the issue of university redevelopment in George Square. The Scottish Department of Health thought there was no valid reason for a Public Enquiry. They argued that the issue of the University development had been considered by the City Council since 1949 and that a Public Enquiry concerned about the 1953 City Development Plan had already been held in April 1954, to which no objections were raised against the George Square plan.

Without success, they resorted to the Secretary of State for Scotland. In late 1956 and

¹⁸⁷ 'Alternative scheme for university expansion', *The Scotsman*, 22 December 1956, p. 6.

early 1957, the conservation groups wrote directly to the Secretary of State. They hoped that in a new Public Enquiry, a wider concern about the University project would be raised and the University authorities' decision to demolish the south and east sides of George Square would be tested and challenged publicly. They argued that the 1953 City Development Plan was concerned only with the general zoning under which 49 acres of land, including George Square, were allocated for cultural and university purposes. This Plan did not include any detailed proposals as to how to develop the Square. Also, in the written statement on the 1953 City Development Plan, only the north side of the Square was designated for reconstruction for the new Medical School buildings. They emphasized that 'the development of the University is a matter in which the public of Edinburgh and indeed of Scotland has a great and legitimate concern'.¹⁸⁸ They objected that no formal hearing of public opinions on the issue of conservation of the Square had been made.

To understand better the problems inherent within the planning debates, the character of the development plan, under the 1947 Town and Country Planning Act, requires a brief explanation.

The concept of the 'Development Plan' was introduced through the Act as a mechanism to overcome the inflexibility of the 'operative scheme' implicit in the pre-war planning system. The operative scheme was associated with the zoning of land. Once zoning was fixed and approved, 'the local authority ceased to have any planning control over individual developments'¹⁸⁹, as zoning was like planning permission. To change this situation, the Development Plan was set up as a means of dealing with the physical, economic and sociological potentialities of the area. The Development Plan was the basis on which planning permissions were made for

¹⁸⁸ *Letter from Cockburn Association to Secretary of State for Scotland on 12 February 1957*, The City of Edinburgh Planning Department Archives.

¹⁸⁹ J. B. Cullingworth, *Town and Country Planning in Britain*, 5th edn (London: George Allen & Unwin, 1974), p. 21.

specific developments. Their relation was looser than in the pre-war planning system since approval within the development plan did not guarantee planning permission and, conversely, planning permission could be out of tune with the Development Plan.¹⁹⁰ In the planning debates bearing upon George Square in Edinburgh, what the protestors wanted was to overthrow the specific design concept of the University around George Square. There was greater sympathy for the designation of the George Square area as the precinct for culture and education in the development plan: this zoning was not so fiercely contested. The function of the Public Enquiry was for questioning the Development Plan, not for challenging planning permission. In the Act, the local authority did possess powers of revocation and modification orders for changing previously approved planning permissions. These orders could only be served, however, before development started and they required permission from the Secretary of State for Scotland. Afterwards, compensation could be paid to the developers/owners by the local authority for expenditure incurred in the preparation of the development and for loss in the development value of the land.¹⁹¹ Due to these inherently complicated processes, and their financial implications, giving effect to this kind of order was largely dependent on the sympathy of the local authority, to the protestors, and was, consequently, seldom used.

The planning legislation implicit in the Act, at this period, allowed little room, in effect, for the public to express their opinions and to exert their influence over the planning process. Protest concerning the George Square redevelopment was regarded by the government as being a challenge to the statutory authority. As the Secretary of State remarked in 1957: 'The objectors are electors who disagree with the decision of the elected and wish to invite a greater power to evict those in possession for what are more sentimental than practical reasons'.¹⁹²

¹⁹⁰ In the 1947 Act, appeal to the ministry was a right for the planning applicants if the planning permission was contrary to the approved development plan.

¹⁹¹ Cullingworth, p. 88.

¹⁹² D. M. Abbot, 'George Square Revisited', *University of Edinburgh Journal*, 35 (1991),

The views (letters) of the conservation groups were copied to the City Council and the University. In February 1957, the Secretary of State had a meeting with the Principal of the University, Edward Appleton. In May of the same year, the University authorities submitted to the Secretary of State their proposal for the George Square development, and emphasized that no alternative plans were able to satisfy the University's needs. Although the submitted proposal contained only 'the minimum of information'¹⁹³, the Secretary of State was concerned that repealing the decisions, which had already been made by the City Council, would mean Edinburgh out of step with the national movement of expansion in higher education and would severely undermine the legitimacy of the local authority.

Late in 1957, the Secretary of State refused to get involved on the grounds that no proposals for the detailed redevelopment of George Square had been put forward by the University authorities. In terms of George Square, the 1957 City Development Plan had not been changed from its previous version in 1953; so no Public Enquiry was necessary. In the planning legislation, the objections could only be lodged after the City's Development Plan had been up-dated to include the proposals which the protesters were against. The Secretary of State argued that the planning approval, by the City Council, was valid for the reason that 'the position here [in Edinburgh] differed from St Andrews'¹⁹⁴ in that in the latter there was a dispute between Town

100-02 (p. 101).

¹⁹³ Ibid.

¹⁹⁴ With Queens College, Dundee – founded in 1883, the University of St Andrews had developed dual centres in the early twentieth century: St Andrews' site for traditional Arts, Pure Science and Divinity and Dundee site for professional studies. The University's policy in the 1950s was to limit the expansion of St Andrews site because of the City's small size and compactness. However, the national requirement for university expansion in the 1950s put pressure upon this strategy. The conflicts between the University, the City Council and the St Andrews Preservation Trust focused on the expansion of Physics Department for which in 1950 the University proposed a new building on the west side of Union Street. But the City Council preferred the site at West Burn Lane. The Trust was opposed to redevelopment of these sites in the reason of amenity of the City. After elongated debates, in the Second Local Inquiry of the City Development Plan in 1956, the Secretary of State approved the West

and Gown with the owners of the property in dispute in the position of civilians in the battle area. In this case the Town and Gown were in complete agreement'.¹⁹⁵

These reasons were not convincing to the conservation groups. Firstly, they felt the decision-makers did not give fair and balanced considerations of their views about the future of George Square. They were disappointed with the planning legislation which could not allow timely and efficient objection to be lodged against controversial development projects. They argued: 'The present state of confusion and controversy has been arrived at by ... a travesty of planning procedure'.¹⁹⁶ Secondly, the interpretation of the relationship between Town and Gown, by the Secretary of State, appeared to concern only the relationship between the University and the planning authority, but ignored the important day-to-day contact between the University and its surrounding community. Between 1957 and 1959, there were still requests for a Public Enquiry. But the replies from the Secretary of State were all negative.

Under pressure of criticism, in 1959, the University authorities decided to show the public their philanthropic intentions, and informed the public of the difficulties they faced. James Drever, Professor of Psychology and Dean of the Faculty of Arts at the University (later in 1961, he was appointed to the Robbins Committee), spoke out for the University authorities in the public media. In an article in *The Scotsman*, September 1959, he tried to raise the sympathy of the objectors. He wrote: 'I am a

Burn Lane site for the University's expansion. In early 1958, the City Council issued compulsory purchase order for this site. But this order was later cancelled by the newly-elected City Council in the same year because the new local authority agreed with the considerations of the conservationists. Between 1967 and 1969, the Science buildings, with university halls, were instead constructed in the site of North Haugh, on the west boundary of the City.

¹⁹⁵ Abbot, p. 101.

¹⁹⁶ *Edinburgh University Development, George Square: an interim report by representatives of the National Trust for Scotland, the Saltire Society, the Cockburn Association and the Scottish Georgian Society* (Edinburgh: George Waterston and Sons Limited, 1960), p. 1.

native of Edinburgh, a lover of George Square. At any rate, I sympathise with my outraged fellow-citizens, and yet I feel that the university authorities are being unfairly blamed. We all regret the fate of George Square, but here are some of the other things we have had to think about'.¹⁹⁷ He explained that each year many qualified young people had to be turned away by the University of Edinburgh due to shortage of physical space for teaching and that the conservation of the existing houses in George Square was not possible as 'the University Grants Committee with other universities pressing their claims could not be expected to preserve George Square at a cost of several millions'.¹⁹⁸ He pointed out that other alternatives were not possible as the University did not own those properties. So the key question in the George Square controversy was what was more important, a fine square or the hopes of many young people? Drever argued that there were no other options, only a choice between 'square' and 'hopes'.

Edward Appleton supplemented Drever's arguments in the article *Plan is minimum dislocation of human lives* in *The Scotsman*. He argued that development of the alternative sites suggested by the objectors would result in the displacement of a considerable number of houses and shops. Further, he explained that 'a house is the home to somebody and a shop is a source of livelihood to someone. The University just does not choose to be indifferent to the homes and jobs of other people'.¹⁹⁹ However, this attempt by the University authorities was disdained by anguished critics as being hypocritical. The criticisms were raised as follows:

Such a choice is pure invention; it has emotional appeal but no factual basis.

For 12 years every amenity society in Edinburgh, thousands of citizens and

¹⁹⁷ James Drever, 'University Admittances: choice between fine square and hopes of many young people'. *The Scotsman*, 5 September 1959, p. 8.

¹⁹⁸ Ibid.

¹⁹⁹ 'Principal answers the George Square critics, plan is minimum dislocation of human lives', *The Scotsman*, 8 September 1959, p. 8.

hundreds of graduates of the University have been reiterating with reasoned argument, that the destruction is unnecessary. Sincere regret would surely have induced the university authorities to come to terms with that formidable body of informed opinion...What has Edinburgh University been doing about it in the last 12 years?²⁰⁰

Drever tried to say that lack of funds limited the freedom of the University authorities to choose the site for the expansion of the University. The estimation of expenditure by the U.G.C. was neutral, regardless of the specific urban situation of individual cases. He thought that the future of a great university outweighed the sadness and regret of the loss of a group of old buildings. But the critics could not understand that it was an either-or situation. The critics' argument revealed their perception that the University authorities had always been in favour of George Square as the site of development and were eager to practise modern architecture and planning. To the critics, if the University authorities were really committed to the conservation of George Square, those difficulties pointed out by Drever could be resolved. It was argued: 'In the intervening 12 years most of the property [in the slum areas] could have been acquired at relatively low cost'.²⁰¹ To them, the 'therapy' to be administered by the University authorities for the problems was orientated in a way to justify their preferred action.

Appleton's argument was also confusing because, on the one hand, the University authorities claimed they were sympathetic to care for the homes and jobs of people; on the other hand, the proposal of the University authorities had incorporated these 'alternative sites' and the dislocation of human lives would have to be carried out in the near future anyway. Especially, in the 1960s, the University/Nicolson Street C.D.A. would result in the dislocation of thousands of existing residents in the South

²⁰⁰ 'Points of view', *The Scotsman*, 8 September 1959, p. 8.

²⁰¹ Ibid.

Side. The University authorities did not have further comments about the critics' arguments. This attempt at communication failed to persuade the objectors; rather it increased the gap between the two sides. Probably due to the public pressure, after he rejected for request of the Public Enquiry, the Secretary of State made a surprising decision in November 1959, calling for a Tripartite Committee to consist the University, the City Council and the Conservation groups. It was the first formal discussion between the three sides, ten years after the start of the George Square controversy! Their remit was to find a possible solution which could satisfy both the University and the conservationists.

During these meetings, the Conservation groups requested from the University authorities a detailed schedule of accommodation requirements for the future years. These data were what they needed in order to work out an alternative plan as, without the detailed schedule of accommodation, there was no evidence on which to base the judgment as to whether some buildings needed reconstruction or refurbishment. However, the University authorities thought this request was unrealistic because the pattern of teaching kept changing and they considered that it was not reasonable to stick to a rigid schedule of accommodation. Despite the lack of detailed information, the conservation groups continued with their study. After deliberation, the technical advisors to the conservation groups asserted that they had alternative proposals which would allow for the preservation of the facades of the houses in the Square whilst at the same time meeting the University's requirements in the University Development Area. They suggested the areas between the Square, and Buccleuch Street and Meadow Lane, be cleared for the new buildings, including lecture halls, library and other Faculty buildings (figure 3.25). The south and east sides of the Square could then be converted into teaching buildings for the Arts Faculty. At this point, the objectors had made the concession that the University authorities could use the buildings in George Square for teaching – the issue on

which the objectors could not agreed before. They emphasized that ‘at the end of 1959, the Chief Architectural Investigator of the Department of Health for Scotland, responsible for listing buildings of architectural and historical importance under the Town and Country [Scotland] Act of 1947, recommended that the Square as a whole should be listed in Category A [the highest classification]’.²⁰²

This alternative plan was rejected by the University authorities as impractical. But Edward Appleton promised that the existing houses in George Square would be replaced by the finest modern buildings designed by the best contemporary architects, namely, Basil Spence and Robert Matthew. He argued that the confrontation between new and old also happened when Old College was built. Robert Adam’s magnificent quadrangle rose upon the rubble of the Kirk-of-field. Appleton was convinced that ‘it may well be that to-day, one and a half century later, the architects for our university buildings in George Square are pioneering a Scottish architectural renaissance – a mid-twentieth century renaissance’.²⁰³ Appleton tried to use the analogy with the Old College of Robert Adam to justify the new architecture, but he did not explain how the renaissance spirit made sense or related to the mid-twentieth century architecture. It was not clear what the new architecture would ‘revive’. The rhetorical argument would remain superficial without sober and critical reflections.

The Tripartite Committee evolved to become a sequence of bipartite meetings. The City Council failed to play the supposed role of mediator as there is no indication of what the City Council was doing during the meetings and discussions. No practical agreement could be reached by the Committee. It proved to be chimerical to hope that the solution to a controversy, built up over a decade or so, could be worked out

²⁰² *Edinburgh University Development, George Square: an interim report by representatives of the National Trust for Scotland, the Saltire Society, the Cockburn Association and the Scottish Georgian Society*, p. 3.

²⁰³ ‘George Square plan defended, “Could herald a renaissance”, Sir Edward’s view’, *The Scotsman*, 17 May 1960, p. 8.

within several meetings. Also, in March of the same year, the planning of the Faculty of Arts Buildings in the south-eastern side of George Square had already reached its final stage and planning approval, in principle, had been granted by the City Council. For the Committee, the dilemma was that 'the choice appears to lie between the University's plan as it at present exists, and a complete and necessarily lengthy reconsideration of the whole of the University's development scheme'.²⁰⁴ Facing the national pressure for urgent university expansion, the local authority and the Secretary of State would certainly not take the radical action to reverse the motion of the existing planning machine. At this stage, the convening of the Tripartite Committee to discuss the alternatives to an approved plan was rather ironical and meaningless.

Unsurprisingly, the Secretary of State made his arbitration in favour of the University. In 1960, a group of angry people pursued the argument of George Square into the Court, but with the result that 'judgment in the Court Action raised by the Reverend Ian Simpson had been given entirely in favour of the University'.²⁰⁵ In an open debate with Bailie Ingham (the Deputy Chairman of the City's Planning Committee) in *The Scotsman* in August 1960, Moray McLaren (a well-known broadcaster and incisive writer at the urban problems of Edinburgh) criticised the 1955 meeting between the City Council and the University authorities as being 'connivance':

The Excellence of their (City Council) 'admins.' is one of the favourite themes of defeated generals when writing about their 'unaccountable reverses'; but we have tasted their fruits... Perhaps the bitterest fruit we have had to taste is in the proliferation of a shabby 'subtopia' all around our once solidly, usually

²⁰⁴ 'University Development and George Square', *University of Edinburgh Journal*, 19 (1960), 232-48 (p. 239).

²⁰⁵ 'Minutes of a meeting of the University Development Committee on 31 October 1960', *Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

well, sometimes beautifully built and even yet nobly-placed city.²⁰⁶

Further, he accused the planning permission granted for the reconstruction of George Square as 'moral collapse'. Being a conservationist, he regarded the debates about George Square as 'a democratic issue'.²⁰⁷ The 1959 Tripartite Committee did nothing to help bridge the gap between the University and the conservationists; rather, the prolonged and sporadic communications between the two sides widened the social divergence in the City. When Lewis Mumford visited Edinburgh in 1961, he analogized the confrontation between the University authorities and the conservationists and interested people as the relationship between 'Knife-happy surgeons' and 'Touch-me-not Conservatives':

At present, in most cities, the field is unfortunately divided between two equally mischievous schools – the conservative 'touch-me-nots,' who would wait till gangrene sets in before they are ready to consent to an operation, and the knife-happy surgeons who, like Mr. Surgeon Cuticle in Melville's 'White-Jacket,' are so eager to practise their art that they do not distinguish between healthy tissue and diseased, but remove both and let the patient die!²⁰⁸

The attitude of the two sides was just like the diplomatic address in a seemingly meaningful debate – 'I appreciate your arguments, but I think you are wrong.' The George Square debates embodied the conflicts of the University authorities and the conservationists. However, the impact of the local authority's attitude cannot be ignored. When the national force for university expansion gathered its strength in the 1950s, as a branch of government, the City Council felt obliged to meet the national

²⁰⁶ Moray McLaren, 'Council connived at destruction, "by their fruits ye shall know them..."', *The Scotsman*, 30 August 1960, p. 6.

²⁰⁷ Ibid.

²⁰⁸ Wilfred Taylor, 'A Scotsman's Log', *The Scotsman*, 3 February 1962, p. 6.

needs. The Secretary of State justified his support of Edinburgh University's corresponding action to the national movement of higher education. The fact that the decision-makers did not give their full attention to the 'local interests' increased public opposition to the university development and instigated disappointment with the planning legislation and machinery.

The evolution of the planning decisions undertaken by the City Council, from 1949 to 1959, reveal the ambivalence of the planning decision-makers and their lack of determination to solve the urban problems; in particular the tensions between education, housing, administration and commerce in the South Side. The 1953 and 1957 City Development Plans were, as Cliff Hague argued, 'backed by a written statement which was a laborious catalogue of sites, acreages and zonings, the myriad of property parcels blurring any overall concept of urban structure'.²⁰⁹ To draft these Development Plans, the City Planning Committee tried to avoid the public criticisms which the ambitions of the Abercrombie Plan had instigated, but they went too far in a situation where there was not a real plan to control the urbanization of the City as a whole. On the issue of the urban development of the South Side, the local authority was in a sort of passive position. This can be easily understood if one sets the inherent 'complacency', in the mind of the City Council, against the national context of increasing pressure for urban redevelopment. Thus it was unsurprising that it was the University authorities, in 1962, who prompted the City Council to consider the comprehensive development of the interests of education, housing, administration and commerce. Backed by the ethos of the Robbins Committee, the University of Edinburgh had a much more ambitious plan than that proposed in the 1950s. But planning in the 1960s and 1970s was quite a different matter from that in the period of the 1940s and 1950s.

²⁰⁹ Hague, p. 218.

3. The University's Comprehensive Development Area Plan and planning blight of the South Side

Although the George Square redevelopment was approved, the University authorities were very much dissatisfied with the surrounding environment of decayed houses, backyards of shops and storehouses:

The existing street pattern within these areas is insufficient and in part obsolete and serves only to break up the whole university precinct. The problem was therefore how to achieve a real integration of the University in a physical sense and to make possible the safe and easy pedestrian movement of both the students and the general public throughout the area.²¹⁰

At a Special Meeting of the Major Buildings Committee of the University, held in December 1960, the notion of 'Comprehensive Development' was introduced which meant developing the University and the surrounding area as a whole rather than separately. Recommended by Basil Spence, in January 1961, Percy Johnson-Marshall, an active planner involved in various urban planning projects in Britain, was appointed as the University's Planning Consultant to prepare a Comprehensive Development Plan.

He marked off 125 acres of land in the South Side as being the area which was in need of comprehensive development. For Johnson-Marshall, the challenge facing the planning of the South Side was the serious traffic problem which was the consequence of the irregular narrow streets, unplanned commercial and industrial development and increasing ownership of private cars. The podium concept, first

²¹⁰ 'The University in the City: the University of Edinburgh Comprehensive Plan, 1960', *Estates and Buildings: Development*, UA DRT 98/005 Box 1, Special Collections, miscellaneous papers, University of Edinburgh Library.

suggested by Robert Matthew in 1959 for the Arts Faculty Buildings, was perceived as the solution for the traffic problem in the City, at the same time securing a safe and free environment for pedestrians (figure 3.26). The existing street pattern, therefore, would be partly changed. It was proposed to ease the increasing traffic pressure on the North Bridge, South Bridge and the George IV Bridge and to relieve the traffic congestion in the area of the University and Nicolson Street. South College Street would connect with Lauriston Place and the traffic through Bristo Street would be diverted to Nicolson Street, and the Bristo area could be made free of traffic. The Bridges Relief Road, which was part of the inner ring road in Abercrombie's 1949 plan, was included in the C.D.A. plan. According to Johnson-Marshall, "the best of old", such as Old College, the Medical School complex, Old Infirmary and the Surgeon's Hall, would be retained and other buildings would be torn down to free land for new roads and buildings. Upon the podium, it was conceived that university buildings would mix with commercial, office buildings and residences (figure 3.27). It was expected that the University would gradually take over the upper floors of some buildings for its Science laboratories or tutorial rooms. By this strategy, it was hoped that Science departments would be moved back to the city centre, so as to create an integrated university precinct together with other Faculties in the University.

At a special meeting of the University Court in March 1962, it was stated that 'the proposals included housing for the middle-income groups within the area, as it was most important that such a large part of the City should not be sterilized for university and commercial use only'.²¹¹ Appleton supported the proposal that, 'what was proposed now was bold and exciting and could be regarded as being as important for the City and the University in the present century as the New Town

²¹¹ 'Minutes of a special meeting of the University Court on 5 March 1962', *Development Committee (Paper-Minutes-Meetings)*, DRT 98/005, Box 1, Special Collections, miscellaneous paper, University of Edinburgh Library.

was for the City in the eighteenth century'.²¹² The glory of the New Town was always the paradigm in the minds of the architects and planners of the University. In 1963, the City Council accepted this proposal in principle. A large exhibition, including plans, sketches, models and photographs of the C.D.A. and other examples of cities and universities, was installed in Adam House – the new examination hall for the University built in Chambers Street in 1955 – in order to keep the public informed of this proposal. It was named as 'The University in the City Exhibition', running from 20th August to 8th September 1962.

To consider the details of the C.D.A. project, a Tripartite Committee was formed of the University, the City Corporation and the private firm, the Murrayfield Real Estate Company. The Committee set up a Technical Working Party in order to prepare the documents for submission to the Secretary of State for Scotland. Various surveys were made. They included existing land use, plot ratio, residential density, age and condition of buildings, and lists of historic buildings. Based on these surveys, corresponding design studies were carried out. It was estimated by Johnson-Marshall that the implementation of the C.D.A. Plan, divided into four stages, would take about 20 years (figure 3.28). Later, in 1965, the University/Nicolson Street C.D.A. was added in the City Development Plan. During this period, the C.D.A. was generally accepted in the City. Some people shared the optimism of the University authorities for, 'a town combining the most recent advances in technology with the best of modern civic design'.²¹³ However, the crucial difference between the C.D.A. and the New Town was that James Craig drew his plan for the New Town on a blank piece of paper which did not have an existing and complicated pattern of social structure, land use and urban fabric as the South Side had. The long-accumulated tensions between the different interested groups of people in the City, the changing

²¹² Ibid.

²¹³ John G. Gray, *A second New Town – or a lost opportunity*, reprinted from the issue July 1962 of *Edinburgh Chamber of Commerce Journal*, Edinburgh Room Archives, The City of Edinburgh Library.

national circumstance of university expansion, and the larger context of urban planning in the City, were the major factors which affected the implementation of the ambitions of the University authorities.

While proposing the University/Nicolson Street C.D.A. Plan, the University authorities continued their expansion scheme without waiting for the definite decision on the other parts of the C.D.A.. Between 1955 and 1959, the University authorities had been acquiring the properties in the Bristo street area – bound by Lothian Street, Potterrow, Crichton Street, Charles Street and Bristo Street – and the Buccleuch Place of the University Development Area. The construction of the Faculty of Arts building, in the south and east sides of George Square, had started on schedule in early 1961. The University authorities carried out decanting tenants who occupied premises on these sites in the meantime. In 1962, they began moves for demolition of these two areas for the new buildings of the University. They proposed a new Students Centre, gymnasium and First Year Science-Teaching extension in the Bristo area while including Buccleuch Place in the 1964' RMJM plan for the Faculty of Arts and Social Sciences Buildings. In early 1964, the City Council agreed to designate the northern block of the Bristo street area, the so-called Island site, for compulsory purchase. This site was cleared and the first phase of the new Potterrow Student Centre started in 1966. In the same year, the City Council declared the southern blocks of the Bristo street area, which included the Parker's Triangle, as clearance areas.

In the meantime, conservation voices were raised to defend the Bristo street area and Buccleuch Place, which were proposed by conservationists as 'alternative areas' for George Square in the 1950s. One critic asked the question:

Where does this university development end? ... with the Robbins Report, it

possibly cannot be ... the council should make up their minds how much of our city we can afford in the centre to give over to education ... in view of the Robbins Report ... these areas cannot be found unless you want to move all your people out of the centre.²¹⁴

Further, in December 1969, a three-part article appearing in the journal *Country Life*, “*Guiding a City’s Destiny*”, “*The New Town in Jeopardy*” and “*A Cuckoo in the Nest*”, by Michael Wright, John Cornforth and Alistair Rowan examined the planning problems in Edinburgh and expressing wide public concern. ‘A Cuckoo in the Nest’ was a direct criticism of the University’s C.D.A. proposal: Alistair Rowan criticized the C.D.A. Plan as ‘an imposition in the centre of an historic town’ and complained that ‘the historical environment was ignored’.²¹⁵ Percy Johnson-Marshall responded to the criticism, arguing that this was ‘a matter of opinion’ as ‘one of the major aims of the Plan was to provide a better setting for some of the important historic buildings in the area’.²¹⁶

Defense for the Bristo street area since the 1960s was largely attributed to the confrontations between the University’s new buildings and remaining urban fabric. In late 1963 and 1966, the fourteen storey Arts Faculty Building, the David Hume Tower and the Science teaching building, the Appleton Tower, rose up from the roof line of the surrounding Georgian houses. Construction of other Arts and Social Sciences buildings – Adam Ferguson Building, William Robertson Building and Lecture theatres – and the Library were all completed around 1968. These new buildings dramatically changed the cityscape of this area with striking visual contrast

²¹⁴ ‘Edinburgh University to get more land: eight acres in central area’, *The Scotsman*, 24 January 1964, p. 7.

²¹⁵ Alistair Rowan, ‘A Cuckoo in the Nest’, *Country Life*, 146 (25 December 1969), 1702-04 (p. 1703).

²¹⁶ ‘Johnson-Marshall’s comments on ‘A cuckoo in the nest’, Minutes of the meeting of the University Development Committee in May 1969’, *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box2, miscellaneous papers, Special Collections, University of Edinburgh Library.

between the new and the old and the huge shadow of the concrete tower blocks being shed onto the immediate neighbourhood (figure 3.29). As one critic argued, 'as more and more came down the value of what was left became apparent. The development of the University of Edinburgh did not, like developments in Oxford, Cambridge, Aberdeen or Dublin, seek to integrate old and new'.²¹⁷ The collage-like image around George Square did not convince the objectors that the University architects were creating the finest modern architecture. In the same period, different voices, on the part of the government officers, also emerged. At the last minute, the Scottish Development Department had the triangle block bound by Bristo Street, Crichton Street and Charles Street being listed as 'worthy of preservation'.

Despite these protests, and different opinions in the local authority, the southern blocks of the Bristo street area, as part of the University/Nicolson Street C.D.A., was given the Clearance Orders by the Secretary of State in 1968 under the Housing Acts.²¹⁸ However, the process was not as smooth as expected. Firstly, the implementation of the compulsory purchase powers was a prolonged and complicated process. The University's development scheme was to some extent hampered by disagreement with the City Council on such questions as density, height restriction and car parking. This difficult relationship between the University authorities and the City Council was recognized by the U.G.C. since some other universities complained about the similar problems. The document *The Universities and Planning and Building Control in Scotland Memorandum in 1968*, issued by the U.G.C. under the consultation of the Scottish Development Department and the Education Departments, explicated the problems of planning and building control on projects concerning university development. They diagnosed Edinburgh's dilemma

²¹⁷ Alistair Rowan, 'Parker's Triangle', (1974), p. 33.

²¹⁸ There was some confusion within the national and local government on the slum clearance. The local authority of Edinburgh stated that the slums in the University/Nicolson Street C.D.A. must be demolished due to hygiene problems. So power from Housing Acts was applied. Clearance Orders given under the Housing Acts for these areas, as John G. Gray commented, paid little attention to planning decisions to be made under the Planning Acts.

as a lack of close co-operation between the University and the Local Authority Planning Department. It was emphasized that 'it [was] particularly important that the university should know as much as possible about the probable evolution of the development plan of the area in which they are situated. The more universities can keep planning authorities in touch with their long-term plans therefore, and vice versa, the better'.²¹⁹ However, the situation had not been considerably improved since the memorandum was sent out to both the universities and local authorities. In 1971, demolition of houses in the southern blocks of the Bristo street area started, but the new buildings finally remained on drawing boards.

Secondly, the University was losing governmental support. In the second half of the 1960s, there was a considerable difference between local expectations and governmental intentions on the matter of university expansion. On the one hand, the universities were thinking 'we were not expanding [higher education] fast enough, nor altering it radically enough'²²⁰ and the voice that proclaimed 'Scotland is not training enough technicians'²²¹ was strong in the air. On the other hand, the government did not really want to commit to such a vast expansion as recommended by the Robbins Report. This mentality can be clearly recognised from the U.G.C.'s letter to the University: 'While we very much appreciated the tremendous efforts which universities had made in framing their 'Robbins' proposals, they would clearly take a little time to study ... until the Committee have been able to consider the whole picture'.²²² After a short period of building boom, from 1960 to 1966, the

²¹⁹ The University Grants Committee, *The Universities and Planning and Building Control in Scotland Memorandum, August 1968, University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

²²⁰ James Drever, 'The Robbins Report in Scotland', *University of Edinburgh Gazette*, 38 (January 1964), pp. 20-25.

²²¹ J. M. A. Leniham, 'Scotland not training enough technicians', *The Scotsman*, 15 October 1960, p. 6.

²²² 'Letter of the U.G.C. to the University of Edinburgh concerning the First Year Science building on 19 December 1963', *Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

older universities in Britain had gradually lost the firm political and financial support of the U.G.C. as the attention of the government was shifted to the new universities. The cutback in the U.G.C. non-recurrent grants for the quinquennium 1967/72 was an example of this shift in the tide of postwar university development. In particular, during this period, governmental non-recurrent grants to the University of Edinburgh dropped by 50% from £4 million in 1966/67 to £2 million in 1971/72, not including the impact of inflation.²²³

By the process of compulsory purchase in the Bristo street area, the cleared sites remained in the hands of the City Council and would be sold to the University. This was a further blow to the University authorities whose limited and shrinking funds were widely spent in several major projects at George Square, King's Buildings and Pollock Halls of residence. The University authorities only managed to buy the north part and built the Student Centre and Business School Buildings. The south part was left empty and was used for the City's car park for more than thirty years until the University authorities recently started to build a Centre for Informatics. The implementation of the extension of the Faculty of Arts and Social Sciences Buildings in Buccleuch Place had also been hampered by the shrinkage of public funds from the government since 1966. With the exception of the group of buildings around George Square, the rest of the Precinct of the Faculties of Arts and Social Sciences remained on the drawing board. In early 1969, the Tripartite Committee of the C.D.A. discussed the possible retention of Buccleuch Place and later the same year, Ian G. Lindsay, was approached for a detailed architectural appraisal of the possible long term use of the buildings on this street for teaching purposes.

²²³ The figures of the non-recurrent grants were not only for the expenditures on building work. They covered other costs, such as professional fees, furniture, equipment, site and property purchases, and university share of new accommodation in teaching hospitals. In the 1960s and 1970s, expenditures on building work by the University of Edinburgh occupied only 20% to 40% of the non-recurrent grants. For example, in 1968/69, the expenditures on building work were £ 779,663 out of the non-recurrent grants of £ 2,342,532.

As early as the 1950s, the University authorities intended to show their consciousness of urban conservation and 'respect for civic dignity and tradition'.²²⁴ They approved an Adam-style Examination Centre in Chambers Street, designed by William Kininmonth (figure 3.30). In 1963, they took responsibility for the run-down Mylne's Court in the Mound/Lawnmarket area (between the Mound on the north, the Lawnmarket on the south, Ramsay Lane on the west and Bank Street on the east). This area used to be densely populated in the nineteenth century and during the first half of the twentieth century. But the demographic situation was that 'the population was decreasing due to young families moving to new housing estates in the suburbs, leaving behind the older people who did not want to move; thus many of the buildings became vacant and fell quickly into a state of disrepair'.²²⁵ The University authorities favoured these properties because they included Patrick Geddes' converted University Halls and the University's Faculty of Divinity, in the New College Building and the Church of Scotland Assembly Hall. They observed: 'It is convenient not only for students, in the Faculty of Divinity, but it is within a few minutes walk for all those in the Faculties of Law, Arts, Social Sciences and Medicine ... The three main libraries in the City are all close at hand'.²²⁶ The University authorities planned a project of renovating Mylne's Court into a University hall of residence with a postgraduate student centre (figure 3.31). With this area being designated as one of the ten conservation areas by the City Council, under the 1967 Civic Amenities Act, the University resolved to work with the City Council on the conservation of this whole area. By the late 1960s, the University owned the western half of the site and proposed to reconfigure some run-down areas into efficient teaching accommodation for the Faculty of Divinity. The contribution of the University to conservation cannot be neglected. However, demolition is always much more conspicuous than restoration. The efforts of conservation by the

²²⁴ Fenton, p. 62.

²²⁵ Ian Lindsay and Partners, *Report on University of Edinburgh Mound/Lawnmarket area* (Edinburgh, 1966), p. 2.

²²⁶ *Ibid.*, p. 7.

University authorities were so dissipated that they were largely overshadowed by the vast redevelopment schemes of the University.

As the University's expansion scheme had encountered difficulties since the late 1960s, other parts of the University/Nicolson Street C.D.A. were at a stand due to the complexity of the commercial and transport planning and mounting adverse public opinion. Although generally acquiescing in the University/Nicolson Street C.D.A. Plan, the City Council seemed to be reluctant to really commit to it and did not share the enthusiasm of the University authorities. In 1963, it was noted by the University Development Committee that: 'The City Planning Officer had now expressed considerable doubt as to the need for a commercial development in this area and proposed to institute an investigation into the commercial needs of the City as a whole. Such an investigation would take an unspecified but considerable period of time'.²²⁷ There was considerable doubt in the minds of the University authorities as to whether the three sides of the Tripartite Party 'spoke in one mind' as 'a meeting had apparently taken place [in 1963] between the City Officials and the Murrayfield Real Estate Company Limited at which the University and the Planning Consultant were not invited to be present'.²²⁸

In the same year, the Secretary of State approved the City Council's proposal to build a shopping centre in the St. James Square area. Although several investigations of the commercial needs of the City approved the commercial potential of the Nicolson Street area, the process of the C.D.A. project was prolonged. Johnson-Marshall identified the reason in that: 'The City Planning Officer was concerned lest the rapid and successful redevelopment of the Nicolson Street Shopping Centre might

²²⁷ 'Minutes of a meeting of the University Development Committee on 8 November 1963', *Development Committee (Paper-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

²²⁸ 'Minutes of a meeting of the University Development Committee on 26 May 1964', *University Development Committee (Paper-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

adversely affect the proposed shopping centre in the St. James Square Area'.²²⁹

The dilemma for commercial planning in the ambitious C.D.A. Plan was that both the University authorities and the City Council had no means of controlling the flow of funds. And there was no clear definition as to how the University's own expansion coordinated with development of rest of the C.D.A. in terms of finance. The University authorities were even unsure whether they could fulfil their plans for the redevelopment of George Square. Without adequate financial backup from the government, the planners and local authority attempted to make use of private capital.²³⁰ The disadvantage concerning funds was that, if not efficiently manipulated, they would drive the development into the opposite direction resulting in piecemeal development. In the Reith Report (1947) for the New Town Movement, 'a rejection of using private enterprises as an agency for the building of new towns'²³¹ was argued. Rocketing land values²³² in cities in the 1960s sharpened the unpredictability of commercial competitions. In this situation, the vulnerability of the University/Nicolson Street C.D.A. project increased. From 1963, various meetings were held within the Tripartite Committee and a series of reports had been made by Johnson-Marshall, the city planning officers and surveyors. However, except for the University's own development, no practical progress in the C.D.A. had been achieved within the following decade. In 1972, the initial projection of retail in the C.D.A. was reassessed by the Planning Consultants of the City Council. Under the circumstance that there was a proposal in the late 1960s for a new shopping centre in Liberton to relieve the scarcity of retail provision in the south-east part of the City,

²²⁹ 'University of Edinburgh Comprehensive Development Area: Report to the Development Committee, 8 November 1963', *University Development Committee (Paper-Minutes-Meetings)*, DRT 98/005, Box 2, Special Collections, miscellaneous papers, University of Edinburgh Library.

²³⁰ To include the Murrayfield Real Estate Company in the Tripartite Committee of the C.D.A. in 1962, was an attempt to invite private investments into the development of the Nicolson Street Shopping Centre.

²³¹ Cullingworth, p. 231.

²³² 'The Rise in the price of land', *The Scotsman*, 17 October 1960, p. 6.

the proposed shopping centre in the Nicolson Street C.D.A. was regarded by the consultants as being redundant:

In view of current trends in the rate of growth of retail expenditure per head, the future development of district shopping centres, and the traffic implications of future growth in Central Area retail facilities, the Central Area's share of retail trade would remain virtually unaltered over the long term... The University/Nicolson Street shopping would fulfil a more local function than had previously been envisaged.²³³

Another uncertain factor for the Nicolson Street C.D.A. was proposals for road planning. The road planning of the C.D.A was delayed mainly by the uncertainty of the inner ring road. In 1965, a city-wide road proposal for Edinburgh was worked out by the technical working party of the City's Planning Committee, in cooperation with consultants, including Percy Johnson-Marshall and William Kinnimonth. The centre-piece of this proposal was an inner ring road. This proposal was incorporated in the 1965 City Development Plan Review (figure 3.32). However, in the 1967 Public Enquiry for the 1965 City Development Plan Review, there was a strong objection to the whole road plan. Critics argued that the proposed road pattern in the plan was not closely connected with the urban situation, in terms primarily of land use and parking. The costs of construction of the ring road (£ 59 to £ 75 million) were alone formidable. The Secretary of State also criticized the ambition of the City Council and the poor communications with the public regarding the planning of the City. Lack of coordination and efficient technical support in the City's planning system was identified by the Secretary of State as well. In 1968, he rejected the northern part of the inner ring road due to its impact on the amenity of the area across

²³³ Colin Buchanan and Partners., and Freeman Fox and Associates, *Edinburgh: The recommended plan, Final Report of City of Edinburgh Planning and Transport Study* (London: Colin Buchanan and Partners, 1972), p. 37 & p. 129.

which it ran. Nevertheless, he approved the eastern part of the ring road and gave general consent to the southern link but required revision of the originally proposed elevated structure through Melville Drive into a tunnel or an open cutting. Adhering to the 1965 Development Plan and the result of the Public Enquiry, the City Council incorporated the inner ring road in the Nicolson Street C.D.A. In 1968, the Tripartite Committee renewed the road proposal for this area (figure 3.33).

Distinguished planners and professionals were invited to give their expert opinions concerning the planning of the central area and the transport problems of the City. Following the outcome of the 1968 Public Enquiry, in 1969 the City Council commissioned a joint study by Colin Buchanan and Partners, the Planning Consultants, and Freeman Fox and Associates, the Transport Consultants. Due to this revision of the city road plan, consideration of the University/Nicolson Street C.D.A. was suspended once more. The studies by Colin Buchanan and Freeman and Fox went through four phases, which produced a Project Report (July 1969), First Interim Report (June 1970), Second Interim Report (October 1971) and Final Report (October 1972). In the Final Report, *Edinburgh: The Recommended Plan*, they recommended large-scale improvements to the public transportation system and their suggestion for the central area road system was that: 'It would be based on a loop (figure 3.34) consisting of Queen Street in its present form, a West End tunnel, a Tollcross Relief Road, Melville Drive in its present form and the partly sub-surface Bridges Relief Road. Inside this loop, a number of streets would be freed of private vehicles to make bus operation more efficient and to increase substantially the space of pedestrians'.²³⁴ They made a careful analysis of the impacts of this loop on the environment, in terms of loss of housing, school, shops and other facilities and general visual effect. They also tried to evaluate public opinion by sending out questionnaires. The final report was much more conservative than the 1965 road plan

²³⁴ Buchanan, p. 3.

due to the increasing public awareness of conservation.

Compared with the 1968 road plan for the C.D.A. by the Tripartite Committee, changes in the existing road pattern proposed by *The Recommended Plan* were much more modest. Major road works were limited to the Cowgate Interchange and the pedestrian bridge connecting the High Street and Chambers Street (figure 3.35). It was argued in the report: 'We have assumed that Nicolson Street is unlikely to be redeveloped comprehensively and that there would be little prospect of any radical change in the form and layout of the street'.²³⁵ This report totally overthrew the original C.D.A. proposal. The University authorities reluctantly accepted this fact by commenting: 'If it is practical to eliminate or reduce drastically the traffic which now passes through the area, and if the shopping area is to be retained and restrained to satisfy local needs, the present ground floor shopping system may be adequate'.²³⁶ The recommendations of *The Recommended Plan* for the Nicolson Street C.D.A. were generally accepted by the Tripartite Committee.

But *The Recommended Plan* was still not widely accepted by the public in terms of the impact of the proposed major road works on the surrounding living environment. The attempt of the joint study, to consult public opinion, was not a success. Since the *First Interim Report*, criticism had already been fierce in the public media and various campaigns were raised against the loop road. Moreover, there was even strong disagreement between people within the local planning system. The City Engineer and the Development Consultants spoke with opposing voices: 'The City Engineer considered [the preferred concept of road system by the Planning and Transport Consultants] ... would fail both to provide sufficient capacity to meet the

²³⁵ Ibid., p. 129.

²³⁶ Percy Johnson-Marshall, 'The University in the City, paper prepared for a meeting with Amenity Societies (1972)', (p. 4), *University Development Committee (Paper-Minutes-Meetings)*, DRT 98/005, Box 3, Special Collections, miscellaneous papers, University of Edinburgh Library.

probable traffic demand in the long term, and to relieve the problems occasioned by heavy traffic in the Central Area'.²³⁷ In 1973, further examination of *The Recommended Plan* was passed onto the Technical Working Group by the City's Planning Committee. But they could not work out a transport policy which was widely accepted either. Under pressure from the protesters, led by the South Central Roads Action Protest Group, finally, in 1976, the inner ring road was abandoned and major road developments in the city centre were withdrawn by the Transport Committee of Lothian Regional Council.

The uncertainty of commercial and transport planning throughout the two decades had serious impact on the physical and in terms of morale of the South Side. Since the late 1950s, under the Housing Acts, the City Council had declared various areas in the South Side as being slums for clearance. Many houses had been demolished and a considerable number of people had been displaced.²³⁸ But no fresh blood was infused into the vacated sites. Private funds would certainly not be invested under uncertain planning policies. So the intermediate period between the announcement of a compulsory purchase order and the coming of new occupants was prolonged and, more critically, unfixed. The situation of the South Side around the 1970s was such that: '[The traders] sold their shops to the Corporation and these were left to the mercy of the weather and vandals. As more and more shops closed down, the Nicolson Street/Richmond Street block changed from being a friendly and bustling area to a virtual desert, interspersed with a few oases in the shape of... the old faithful few who never gave up their fight to stay there'.²³⁹ The contrast between the promising images, given by the planners and the local authority, and the uncertain future (figure 3.36) strengthened the deep nostalgic emotion in the minds of the local

²³⁷ Buchanan, p. 10.

²³⁸ The population in the areas around George Square had dropped from 18,929 in 1951 to 13,097 in 1971.

²³⁹ 'What's happened to Nicolson Street?', *The South Side News (Edinburgh)*, 7 (July 1976), p. 2.

citizens. The frustration of the residents in the South Side were vividly expressed by the doggerel, *The Death of a street*, by Mrs. Kidd who used to live in St. Leonards Street, the area to be replaced by the eastern link of the inner ring road:

*Long long ago St. Leonards lived
A busy neighbourhood
Where one could meet a friendly face
While shopping for your food.*

*'We need a road' the planners said.
With wise nods of the head
'But don't disturb our spacious homes
Let's take St. Leonards – kill it dead'*

*As years go by 'They can't agree
Just where this road will wind.
And so we live amidst the slums
While 'they' make up their minds.'²⁴⁰*

Together with criticism of the University's development of the Bristo street area, the objections to the slum clearance of other parts of the Nicolson Street C.D.A. started to gather strength in the late 1960s. At length, recognition of the South Side as a historic part of the City gained currency. In 1972, the South Side Association was established as a representative body for the interests of the people in this area. Also, increasing pressure for retaining the older buildings came from within the University community. In 1973, reconsideration of the C.D.A. Plan was recommended by the Tripartite Committee²⁴¹ and Buccleuch Place was declared by the City Council as

²⁴⁰ 'The Death of a street', *The South Side News* (Edinburgh), 3 (November 1975), p. 8.

²⁴¹ Hague, p.273.

one of the conservation areas in the South Side.

Under circumstances of increasing public criticism and dissident voices in the university community, Percy Johnson-Marshall implicitly admitted the over-optimism of the University authorities during meetings with the amenity groups in 1972: 'Every city has its philistines, and all the citizens must be on guard against their depredations. Every city has its one-track enthusiasts, who will strive to provide maximum facilities for cars or shops, or even for education, at any price, and who wish to tear down every old out-of-date redundant building. There are others who strive to keep every single stone of a city's historic heritage, taking age and not quality as the main criterion'.²⁴² Johnson-Marshall's words bore a remarkable resemblance to Lewis Mumford's arguments in 1961 and the Clyde Committee's comments of two planning tendencies in 1946. The planning practice of the University and the City Council, after the War, proved that the stand-off between these two positions resulted in failure to produce positive consequences in the redevelopment of George Square.

4. Reflections

Faced with the bitter history of the city planning of Edinburgh after the War, especially regarding the location of George Square, Patrick Geddes' 'conservative surgery' was recalled by some scholars, such as Lewis Mumford.

Mumford argued that 'one of [Geddes's] deepest intuitions about life and his plainest common sense [was]: life is transmitted only through the living'.²⁴³ When he moved

²⁴² Johnson-Marshall, 1972, p. 7.

²⁴³ Philip Boardman, *Patrick Geddes: maker of the future, with an introduction by Lewis Mumford* (Chapel Hill: The University of North Carolina Press, 1944), p. viii.

to Edinburgh in the 1880s, Geddes was much concerned about the social problems of the City, the poor living environment of the people in the Old Town of Edinburgh, in particular. And he advanced his views concerning urban improvement. His naturalist orientation led him to an understanding of the city as representing an evolutionary drama in the life of its inhabitants. He believed that an urban environment would become effective when it was experienced and modified by the individual life.²⁴⁴ Thus there should be a raise in individual awareness and concern for the environment in which he or she is living. When Geddes moved home to the flat at No. 6 James Court, one of squalid areas of the Old Town, he redecorated it and turned it into a decent place of living. With his flat as the example, he 'started arousing public opinion and hounding public officials to the end of removing century-old accumulations of rubbish from James Court and other close'.²⁴⁵ Residents were persuaded to clean their tenements and refurbish their flats. Apart from cooperating with the Edinburgh Social Union, he was acting autonomously as an urban improver of many slum areas around the Royal Mile, including such dilapidated areas as Riddle's Court. In this way, Geddes conceived, that 'the long discord of antiquarian sentiment and utilitarian realism [would] find a renewed harmony'.²⁴⁶ For the renewal projects, he sometimes purchased flats with his own money and raised funds from philanthropists and private investors. Financial stringencies were always a problem for Geddes – an example was his ultimate transfer of management of the University Hall to the Town and Gown Association in 1896. Apart from practising urban improvement, he was dedicated to carrying out the Edinburgh Civic Survey, for which he installed exhibitions in his converted 'house of knowledge'²⁴⁷ – the Outlook Tower near the Edinburgh Castle. The tower was also perceived as an education centre which would raise public concern and enhance understanding of the

²⁴⁴ Patrick Geddes, *Cities in Evolution*, pp. x-xi.

²⁴⁵ Boardman, p. 102.

²⁴⁶ Geddes, *The Civic Survey of Edinburgh*, p. 572.

²⁴⁷ Volker Welter and James Lawson, 'Introduction' in *The City after Patrick Geddes*, ed. by Volker Welter and James Lawson (Oxford: P. Lang, 2000), pp. 9-13 (p. 10).

social problems and urban environment of the City. He was convinced that the right way for Edinburgh was 'conservative surgery' which was 'adjusting the plan to fit a living and growing community'. While he opposed 'finding specific solutions for particular problems of individuals', as Helen Meller argued, 'for Geddes, state intervention was too clumsy, it could upset the ecological balance, and in the end produce more harm than good'.²⁴⁸ Geddes was finding a middle way: the well-educated planner with morality and genuine knowledge of the environment of his region would be 'a guide and an inspiration for the community in its self-development'.²⁴⁹

However, the evolution of the planning debates and planning decisions reveal that the urban situation of post-war Edinburgh was not conducive to this kind of smooth process of city development. The difficulties can be summarized as follows:

First, there was no over-arching power which could resolve the diverse points of difference so as to form a kind of common interest. Both sides which participated in the George Square battle – the University authorities and conservation groups – claimed their plans and ideas represented the general public's interests, either for enhancing the education of the young or for preserving their urban heritage. Although Geddes was regarded by many as the father of modern town planning, the practice of post-war town planning deviated from the fundamental idea of his thoughts – close cooperation between the planner and public. As Michiel Dehaene argues: 'For Abercrombie... the planner was the advisor to the public authorities ... [The post-war politics] created the practical opportunities for would-be planners to transcend the semi-informal context and to present themselves as expert

²⁴⁸ Helen Meller, *Patrick Geddes: social evolutionists and city planner* (London & New York: Routledge, 1990), p. 90-1.

²⁴⁹ Michiel Dehaene, 'Surveying and Comprehensive Planning: the 'coordination of knowledge' in the wartime plans of Patrick Abercrombie', in *Man-made future: planning, education and design in mid-twentieth-century Britain*, ed. by Iain Boyd Whyte (London: Routledge, 2007), pp. (p. 40).

professional'.²⁵⁰ Planners became actively involved in the vast scale of state intervention. For Abercrombie and his younger generation of architect-planners – Spence, Matthew and Johnson-Marshall – a city should be totally planned in order to prevent deviation from what they believed was 'good' and 'ideal'. In particular, the architectural ethos of social change was paramount for Robert Matthew. Collectively, these pioneers believed that the existing social situation must be transformed into a more democratic one in which there would be unified aspirations and social equality – 'beauty, and happiness, and prosperity would be available to all'.²⁵¹ The infrastructure of the social system, including its architecture, must be changed in the way that 'the replacement of the old hierarchical and fragmented ways by mass provision of 'comprehensive' environments constituted both a social ideal, of planned community, and a method of achieving it'.²⁵² They were convinced that as the so-called 'hub of the City', the University should play a leading role in this process. They were eager to design new university architecture thereby to symbolise the new society. In opposition to this, conservationists cared less about the link between architecture and its social role. They were concerned more about the importance of the existing historic architecture and its place in the culture of the City. They did not want society to change as radically as the former group.

These were two forces fighting for dominance. One had political support at national level while the other had the privileged support of local groups. Other people in the City, mainly the working class, were left confused and could only contemplate an unclear future for their living environment. As was remarked in *The Third Statistical Account of Scotland* (1966): 'There is no one body which expresses civic opinion ... All that can be identified is a series of bodies or individuals who have considerable

²⁵⁰ Ibid.

²⁵¹ Charles Robertson, "A great ship in full sail": Basil Spence and Hutchesontown 'c', in *Rebuilding Scotland: the postwar vision 1945 – 1975*, ed. by Miles Glendinning (East Linton: Tuckwell Press, 1997), pp. 92-102 (p. 94).

²⁵² Miles Glendinning, '1945-75: An Architectural Introduction', in *Rebuilding Scotland* (see Glendinning above), pp. 1-46 (p. 15).

influence in certain fields'.²⁵³ In *The Making of Urban Scotland*, Ian H. Adams identified the problems of Scottish tradition of tenancy: 'The Scottish tenant, moving from the turf and stone rural hovel of the eighteenth century, through the made-down house to one and two-roomed tenement of the nineteenth, and finally compulsorily rehoused in a council scheme... has never developed much respect for the fabric of his house'.²⁵⁴ A high percentage of tenancy, over 80%²⁵⁵ of the total housing by the late 1940s in the South Side area, was possibly a contributory reason for lack of concern among the general public about urban development of this area. Robert Matthew ironically recognised this phenomenon of public indifference to the quality of environment at the end of George Square controversy. *The Scotsman* recorded an interview with him in 1970: 'Sir Robert said, 'in the past, we have allowed buildings and whole areas to be cleared away unnecessarily ... conservation today means much more than dealing with old buildings, however. It involves members of the community and goes into all problems'.²⁵⁶ Recognition of the importance of public awareness of the environment after the 1960s was not new, since Geddes had already made his campaigns for urban improvement in the late nineteenth century. In the post-war era, there were emerging experts in planning and a growing gap between experts and public, nationally and internationally. It can be argued that 'disciplined collectivism supported by vast bureaucracies of administrators and professional specialists',²⁵⁷ was not compatible with a Geddesian way of raising and cultivating public awareness of their living environment.

²⁵³ *The third statistical account of Scotland. Vol.15, The city of Edinburgh*, edited by D. Keir (Glasgow: Collins, 1966), p. 310-11.

²⁵⁴ Adam, pp. 183-184.

²⁵⁵ This figure came from Patrick Abercrombie and Plumstead's 1949 *civic survey and plan for the City and Royal Burgh of Edinburgh*. According to their survey of Dwelling ownerships, 1946 (Map 8), only in some of the suburban areas did the owner occupied housing have a higher percentage than the rented dwellings.

²⁵⁶ David Scott, 'Sir Robert takes over the conservation supremo', *The Scotsman*, 28 November 1970, p. 11.

²⁵⁷ Miles Glendinning, 'Patrick Geddes and Robert Matthew: the missing link of Neotechnic Modernity' in *The City after Patrick Geddes* (see Volker Welter and James Lawson above), pp. 249-62 (p. 254).

Second, there was not a competent planning mechanism to lead and control the urbanization of the city. Before the 1940s, there was not even a plan for the City of Edinburgh as a whole. The 1940s was a period of planning activities, including the works by Mears and Abercrombie. The following decades of city planning in Edinburgh, however, saw the dominance of the statistical development plans which were always out of date, as previous exploration of the planning debates and the public inquiry has revealed. The considerable amount of work to prepare the development plan meant that most of the local authorities were not able to meet the requirement of the 1947 Planning Act to review the plan every three or five years.²⁵⁸ Of the problems of the 1947 Town and Country Planning Act, J. B. Cullingworth observed: 'The [development] plans could not be prepared at speed when major planning implications were involved. The procedure for designating 'comprehensive development areas' was elaborate and cumbersome. The amount of survey work, map-drawing and detailed planning required made the whole process lengthy'.²⁵⁹ Consequently, this inchoate planning machine could not keep pace with the frequent changes in urban interests and the many developing policies.

The new urban form in postwar Edinburgh was in danger of fragmenting. How the resulting development of George Square, hailed by the architects as 'a golden opportunity of modern architecture', turned out to be, and what its relationship was with the urban fabric, are questions that will be explored in the following chapter.

²⁵⁸ Cullingworth, p. 78.

²⁵⁹ *Ibid.*, p. 257.

Chapter Four

Constructing the George Square Campus

Introduction

During the post-war period, many British universities were planned and designed, mainly by single architects or architectural firms: for example, Liverpool University by William Holford; Bath University by RMJM (Robert Matthew and Johnson Marshall); and Sussex University by Basil Spence. In contrast, the planning of the University development in Edinburgh involved various architects and planners including Frank Mears, Patrick Abercrombie, Charles Holden, Basil Spence, Robert Matthew and Percy Johnson-Marshall. Some of their contributions have been discussed in the previous chapter. In addition to the planning debates, the construction of the George Square campus of the University of Edinburgh can therefore also be regarded as a collective work by a group of distinguished architects and planners, who included some of the names mentioned above.

In the 1950s, the design of the new buildings on the east, south and north sides of George Square was assigned to different architects. The Arts buildings on the south and south-east sides were designed by RMJM; the architect to the Main Library was Basil Spence; the Science buildings would follow the aspirations of Allan Reiach and his fellows; and design of the Medical School Extension was allocated to Walter Ramsay, under the supervision of Basil Spence.²⁶⁰ Among these architects, Robert

²⁶⁰ When investigating the University's application for the extension to the Medical buildings on the north side of George Square, in its letter to the University of Edinburgh on February 24th 1955, the Planning Sub-committee of the Town Council stated that it was not favourably impressed by the design of the new Medical buildings – in terms of their architectural

Matthew worked as the Internal Architectural Advisor; he had the role of coordinator with responsibility for controlling the process of design to ensure the different buildings in the Square formed a harmonious group.

When the David Hume Tower of the University of Edinburgh was officially opened in October 1963, the architect, Robert Matthew talked about the Arts buildings before an audience which came from outwith and within the University: 'I am following a great tradition, and I would like to think that I have contributed something – something more than the provision of the necessary additional square feet for 'usable area' – something that I earnestly hope will add to the quality of environment, both of the University, and the City'.²⁶¹ John Richards, one of the principal architects in Robert Matthew's office, charged with designing these buildings, commended them as being 'imaginative [and satisfying to the] academic requirements'.²⁶²

This statement raises a number of questions. What were these academic requirements? What was the quality of the built environment, for the new George Square, as reconstructed through the medium of this multi-architect project? These questions are the focus of the discussion presented in this chapter. The investigation follows the evolution of the three major building complexes in George Square, namely: (1) Arts and First Year Science buildings; (2) Medical School Extension; and (3) The Main Library.

consistency and harmony with the other three sides of George Square. Basil Spence was therefore asked by the University to get involved with the cooperation with W. N. W. Ramsay.

²⁶¹ 'The Hume Tower', *University of Edinburgh Gazette*, 38 (January 1964), 26-40 (p. 30).

²⁶² *Ibid.*, p. 27.

1. Arts and First-Year Science buildings

Planning the Faculty of Arts and Social Sciences buildings

The provision of accommodation for the Faculty of Arts in George Square was not the original intention of the University authorities in the 1940s. As the discussion of the planning debates has shown, when they started to consider the expansion of the teaching in George Square at this period, it was the Faculties of Science and Medicine which were given priority. In Charles Holden's 1947 plan, George Square was proposed as being a sort of Science campus, occupied by the Medical and Science departments, including Zoology, Mathematics, Chemistry, Engineering, and Agriculture. The majority of the Faculty of Arts — Philosophy, Languages, History, Economics and Fine Art — were expected to be housed in Old College.²⁶³

However this idea, which involved the wholesale removal of the Faculty of Science from the King's Buildings, was later (1949) recognized by the University authorities as being implausible in the short term because 'the U.G.C. will not be inclined to look kindly on schemes which involved the abandonment of buildings which were still perfectly adequate for their purpose'.²⁶⁴ In 1949, after intense discussion within the University Court, a short term policy was adopted. It was a proposal for a dual development which included a main precinct around George Square and the retaining of a Science headquarters in the King's Buildings. Following this policy, the priority of construction in George Square was reshuffled. But in the following years, the University authorities had not made progress in determining what would exactly be built in George Square – though Basil Spence had produced a general plan in 1955

²⁶³ 'Memorandum on post-war planning submitted to the University Court by the Senatus and by the Special Committee of the Court on post-war development, January 1944', *Post-world war II development: Volume I, 1939-1945*, Box 141 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁶⁴ 'University Development, plan for the continuation of the present dual development, July 1949', *Post-World War II Development: Volume III, 1948-1949*, Box 143 VE, miscellaneous papers, Special Collections, University of Edinburgh Library.

(Figure 4.1). They were engaged in tense debates and prolonged negotiations with the City Council over planning permission for the redevelopment of the Square. Thus no attempt was made for the University's major projects for 1954, 1955 and 1956. As a result, Sir Keith Murray, Chairman of the U.G.C. sought explanation at his meeting with Edward Appleton in late 1955.²⁶⁵ Meanwhile there was a plea from university officers: 'Unless the University authorities can make up their mind on what goes in George Square, Spence can only produce an airy-fairy plan divorced from all reality, no doubt to be consigned like the College Mile to the bottom of a very large filing box'.²⁶⁶

Detailed considerations started after the City Council gave planning permission for the redevelopment of George Square in 1955. In December the same year, the University Development Committee recommended the erection of a building for the Faculty of Arts on the east side of George Square, and, in 1956, they decided that this building should have top priority along with an Engineering Building and the new Library in the list of major projects. A Sub-Committee was established to supervise the project of this new Arts building. At its first meeting in November 1956, the Sub-Committee recognized that it was not realistic to accommodate all the Arts departments in George Square since a large lecture hall for the new campus and the new University Library needed to be provided accommodation in the Square. When the financial situation improved, the question of transferring the Science departments to George Square was raised again. The instruction from the University Court in 1957 was that only the Arts departments, in urgent need of space, would be accommodated in the Square: these were notably, Oriental languages, Modern

²⁶⁵ As the governmental grants for buildings were non-recurrent, delays in application for this kind of money by the universities would cause considerable loss of funds.

²⁶⁶ John Macpherson, 'University Development: Mr. Basil Spence, 1954', *Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

Languages, Classics, Philosophy, History, Economics and Social Sciences.²⁶⁷ Robert Matthew recommended that in order to accommodate all the proposed departments, 'the site of No. 47 to No. 50 George Square alone would not be sufficient for the first section of the building and that it would be necessary to take in the remainder of the ground between George Square, Windmill Lane and Buccleuch Place'.²⁶⁸ By estimation, the proposed building, later named Schedule I, would provide the accommodation of around 130,000 sq. ft. The statement of requirement of Schedule I was submitted to the U.G.C. in early 1958. Soon after the submission, Robert Matthew was appointed as the Architect to the Arts buildings.

In December 1958, Matthew submitted the model of his proposal (Figure 4.2). It was a group of physically separated buildings standing on a podium slab as 'the difference in levels between the Square and Buccleuch Place gave rise to the idea of a two level layout'.²⁶⁹ Schedule I was a fourteen storey Arts Tower placed at the south-eastern corner of George Square. One, four-storey linear block was placed on the east side of the Square. Another linear block and a 600-seat lecture theatre, for large classes of first-year students and academic conferences, were placed on the south side, completed by the new Library building which was being designed by Basil Spence. The front façade of the Arts Tower and the linear blocks were to be of dark slate frames while the side façade would be clad with light coloured stone. For the lecture theatre, the main space of the theatre was placed above the entrance hall. The design of lecture theatre was reminiscent of Matthew's work for the Royal

²⁶⁷ The study of Social Sciences had started in the University of Edinburgh since the 1940s. James Bowie stated in his 1939 seminal book *The future of Scotland : a survey of the present position with some proposals for future policy* that the study of the human relations would become a major subject of the postwar era. Social Sciences at the University of Edinburgh remained in the Faculty of Arts until a separate Faculty of Social Sciences was established in 1963.

²⁶⁸ 'Minutes of the meeting of the University Development Committee on 7 November 1956', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁶⁹ 'The Hume Tower', p. 29.

Festival Hall in the South Bank of London. Hanging above the entrance, the windowless boat shaped volume was supported by giant concrete cantilevered beams and created a huge canopy. This formed a dramatic contrast with the glazing of the lower level. Matthew's proposal made considerable changes to Basil Spence's 1955 plan, though it kept much of the layout of the proposed frontages of George Square by Spence. The differences mainly fall in two categories:

(1) Matthew changed the location of the tower. Originally, Spence placed one fronting the George Square garden, on the south side, while the other three towers were located besides the courtyards which were in the areas to the south and east of the Square. The intention underlying this change was made clear when the University authorities applied for planning permission of the City Planning Committee in 1959:

The fourteen storey block would be placed outside the Square and the four storey blocks in the Square would retain the general siting, form and height of the existing building. The fourteen storey block, although considerably higher than any existing building in the vicinity, would be unlikely to affect adversely any existing building.²⁷⁰

Spence's four towers, to the south and east of George Square, were reduced to only one. This change was mainly caused by the fierce criticisms from the conservation group which was opposed to the University's redevelopment of George Square. In the article *The University of Edinburgh: a case study of evolution and planned redevelopment* (1964), Percy Johnson-Marshall argued: 'Edinburgh has a very fragile and beautiful skyline, and I recommend that since two tall buildings [Arts Tower plus the First Year Science Tower] were already approved, the rest of the university

²⁷⁰ 'Minutes of a meeting of the Planning Sub-Committee of the Planning Committee, Edinburgh Corporation on 18 February 1959', *Major projects, Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

development should consist of fairly low buildings'.²⁷¹ Johnson-Marshall's recognition of the detrimental impacts of the towers was certainly influenced by opposition from conservationists to the University's new buildings. But the fact was that the fragile skyline had already been broken.

(2) Spence's idea of a courtyard was superseded by Matthew's concept of a podium. Probably the courtyard idea appeared to be impractical. It relied on adequate free land so that buildings and corridors could stretch themselves to their ideal forms. But at the time, it was uncertain when the University could acquire properties in the area of Buccleuch Place for demolition to make space for the further stages of the Arts buildings. Under the circumstance of limited availability of land and pressure for more accommodation, the podium was probably regarded as a better choice than the courtyard since it could make full use of the sloping site at the south side of George Square to create more usable spaces. The podium would also cover service spaces, common rooms, car parking and corridors. In addition, another potential advantage of the podium was recognised later: 'The podium could incorporate extra lecture halls, a Day Nursery and other requirements at the lower level, leaving the main block above the George Square level unchanged as far as its outward appearance is concerned'.²⁷² This consideration derived from concern with the character of established town planning in Edinburgh. Once planning permission had been given to a certain project, especially in such a sensitive area as George Square, there would not be freedom for the University authorities to change the shape and size of the new buildings.

It was estimated in 1959 by the University Development Committee that this group

²⁷¹ Percy Johnson-Marshall, 'The University of Edinburgh: a case study of evolution and planned redevelopment', *The Architectural Review*, 136 (July 1964), 45-51 (p. 50).

²⁷² 'A letter from J. Richards to the Secretary to the University of Edinburgh on 22 January 1962', *Major projects, Arts and Social Sciences Faculties*, DRT 97/023, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

of Arts buildings in George Square would provide accommodation of 36,270 sq. m. The Committee decided that the work would be carried out in four phases (Figure 4.3): (1) Schedule I, including the Arts Tower and the podium, would house language units, and the Departments of Classics and Philosophy. The number of students who would make use of this complex would be at around 1,200; (2) Schedule II was a building which included three 200-seat lecture halls and was placed besides the Arts Tower; (3) Schedule III was the two linear blocks. One on the east side of the Square, named Block C, would be used by 1,000 students of the Departments of History, Geography and Economics. The other block, on the south side of the Square, named Block D would provide teaching accommodation for 800 Social Sciences students and the Department of Psychology; (4) Schedule IV was the 600-seat lecture theatre. Matthew recommended that demolition required for Schedule I should commence in early 1960 and construction of the Arts Tower should start in the same year.

In addition to the problems of acquiring properties and decanting existing residents, the major challenge the new Arts Faculty buildings faced was financial. In 1958, the U.G.C.'s expectation for expansion of the universities focused on Science:

The student number had to be borne in mind in relation to the £6 million allocated for capital investment in the Universities over the period 1960-63. It was hoped and expected that something of the order of two-thirds of the additional numbers – 750 students – to be taken by the Universities would be Science and Technology.²⁷³

This meant that the allocation of grants would give expansion of the physical and applied Sciences priority over the Humanities. In the University of Edinburgh, the

²⁷³ 'Discussion with Chairman of the University Grants Committee on 27 March 1958', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

Faculty of Arts was the biggest and fastest growing academic unit. In 1954/55, the Faculty of Arts had 2,312 students compared with 1,344 in the Faculty of Science. In the period between 1955 and 1959, the expansion rate of the Faculty of Arts, in terms of student numbers, outpaced that of the Faculty of Science. Between 1955/56 and 1956/57, for example, Arts enrolled 389 new students, compared with 165 in Science.²⁷⁴ During this period, no considerable investment was made for the accommodation of the Faculty of Arts. The limitation laid by the U.G.C. further aggravated the existing shortage of accommodation of Arts in the University and would lead to severe cost restraints.

In order to achieve 'maximum economy of space'²⁷⁵, the University authorities treated efficiency as the primary aim of design for the new Arts buildings. The Arts Tower was planned as a simple rectangular form allowing better adaptability than other more complicated shapes. Large seminar rooms, shared by all departments in the tower, were placed at the podium level attached to the main volume of the building. The first floor was designed for the Faculty offices, whilst the upper-floors accommodated mainly smaller tutorial rooms. Lecture rooms and departmental libraries were located at certain levels at the north-end of the tower. For the linear blocks, the libraries and large lecture rooms were located at the entrance level while the upper floors were designated to tutorial rooms and offices. Independent blocks of larger lecture rooms were connected to the linear blocks by covered passages (Figure 4.4).

The 'efficient' plans for the Arts Tower, however, were heavily criticized by the language departments. In the first instance, it was potential overcrowding that annoyed the departments. It was felt that the floor area of 82,000 sq. ft in the Tower

²⁷⁴ The statistics comes from Association of Commonwealth Universities, *Commonwealth Universities Yearbooks* (London: Association of Commonwealth Universities, 1957&1958).

²⁷⁵ 'The Hume Tower', p. 28.

was too small for fourteen departments²⁷⁶ which had a great need for seminar rooms, libraries and common rooms. In a letter from the Head of English Language and Literature to the Dean of the Faculty of Arts, in 1959, they complained: 'Our present accommodation does not give us all we need; it does not give us any lecture rooms; but we should much prefer to continue indefinitely to inhabit such a self-contained unit than to have to move into what is certain to be such an overcrowded building as the proposed Arts Tower'.²⁷⁷ From these words, it can be seen that these departments were worried that overcrowding would be to the disbenefit of their individual identity.

Furthermore, the departments disagreed with the proposed arrangement of lecture rooms and class libraries. Take the example of class libraries. Numerous small departmental libraries were a headache for the University authorities in terms of administration. Although the decision to place the Main University Library in George Square would relieve some pressure on the over-burdened university library system, some class libraries were to be retained. The University authorities proposed to reduce the number of class libraries within the Faculty of Arts by amalgamating certain departmental libraries, for example, those of English Language and Literature, the School of Applied Linguistics and Phonetics. A solution was conceived: 'The arrangement of departmental libraries would both keep them in reasonable relationship to their department and yet bring several of them together at various points in the building to make possible economical supervision by the library or other staff'.²⁷⁸ However, this compromise was not able to satisfy many professors in the

²⁷⁶ The fourteen departments which were accommodated in Arts Tower were as follow: Ancient History, Ancient Philosophy, Celtic, English Language and General Linguistics, English Literature, French, German, Greek, Hispanic Studies, Italian, Latin, Logic and Metaphysics, Moral Philosophy and Russian.

²⁷⁷ 'A letter from J. E. Bult to the Dean of the Faculty of Arts at the University of Edinburgh on 1 October 1959', *Major projects, Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁷⁸ 'Minutes of the meeting of the Arts Faculty Building Committee on 30 June 1959', *Major*

Faculty of Arts. In June 1960, they collectively wrote their criticisms to the Dean of the Faculty of Arts: 'We are much perturbed to observe that the plans do not appear to take into account many of the recommendations we put forward. Class libraries should be integrated within the individual departments. This we regard as being of fundamental importance for the efficient working for our departments'.²⁷⁹ Moreover, there was doubt about the ability of the Tower to cope with future changes. In a letter to the Secretary to the University in August 1960, D. McMillan, Professor of Literature, criticized the plan of the Arts Tower: 'Despite the inflexibility inherent in the structure of the tower, we should envisage the time when we may have sufficiently overcome the staffing problem to enable us to hold a fairly large number of small classes. The present plans do not seem to be conducive to this'.²⁸⁰ He shared the opinion with many other members of staff in the Faculty that the plan's compliance to the 'schedule of accommodation' was so restrictive that little attention was paid to further changes in education. In addition, the way of designing the Arts buildings – the architects obtained the statement of requirements from the University authorities, having no contact with individual departments – was heavily questioned by the departments for its lack of consultation with the users who would eventually occupy the buildings.

For the University authorities, the strategy of the University development scheme was to bring dispersed Arts departments together in one precinct as early as possible. Under the circumstance of financial constraint, and amounting criticisms of the University redevelopment of George Square from the conservation groups, the ambitious schemes of the University were largely restrained. A certain amount of

projects, *Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁷⁹ 'A letter from departments to the Dean of the Arts Faculty on 20 June 1960', *Major projects, Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁸⁰ *Major projects, Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

overcrowding or sacrifice of interests of individual departments seemed to be acceptable to the University authorities as long as their strategy of integration was fulfilled. The University authorities also had the concern that responding to the requirements of various departments would result in an uneconomical solution for administration and would complicate the planning process. They did not want protracted debates about functions to delay the schedule of construction of the Arts Tower. Minor adjustments were made to the plans, with the addition of some students' common rooms. Although the dissenting voices were still strong in the air, the layout of the Arts Tower was announced in 1961 by the Sub-Committee of the Arts Faculty Building Committee as being 'entirely satisfactory'.²⁸¹

Demolition of houses on the east side of George Square and the north side of Buccleuch Place started in 1961 (Figure 4.5) and construction of the Arts Tower started in the following year. Detailed design for Blocks C and D began in the meantime. Given the circumstance of rapidly changing techniques and methods in teaching and the fast expanding horizon of subjects, and criticisms of the plan of the Arts Tower, the University authorities were concerned that the design of these blocks should not only meet the written statement of requirements, but should also provide space for 'unforeseen' changes. As the architect interpreted: 'There is a clear requirement that such changes can be made without major structural conversion and without disrupting the circulation and general patterns of activity in the building and between them'.²⁸²

In response to the above comments, revisions of the 1959 plan were made. Major changes originated from re-location of the staircases. The staircases were moved

²⁸¹ 'Minutes of the meeting of Arts Faculty Building Committee on 12 January 1961', *Major projects, Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁸² 'A letter from J. Richards to the Dean of Faculty of Arts on 28 November 1961', *Major Projects: Arts and Social Sciences Faculties*, DRT 97/023 Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

from the flanks to the middle of the buildings, so as to reduce the restriction of these structurally fixed units, on the flexibility of the buildings (Figure 4.6). It was proposed that departments would be centred around the staircases and that each department should occupy at least half of a staircase so that:

In each case the corridors leading from the stair to the rooms in the departments are departmental territory. In Block C and D no staff or students foreign to a department need to circulate through its corridors, though some casual inter-departmental circulation may occur. Departments can expand at the expense of adjacent departments, or when the buildings are physically extended.²⁸³

In the sectional configuration of the blocks, the ground floors had lecture rooms for ordinary and honours students of all the departments, while the shared functions by certain departments, such as seminar rooms and libraries, would be allocated to certain upper levels according to specific academic arrangements (Figure 4.7). It was conceived by the architects that 'the interaction of the vertical stratification of functions and the horizontal stratification of departments grouped around stair cores ensures that each department cuts across all the functions, and at each level access can be had to every department'.²⁸⁴

An analysis of room sizes of the typical accommodation required by the Arts departments was made and the resulting 24' × 24' structural bay was applied throughout the teaching blocks. It was expected that various arrangements of this module could be possible, for example, dividing it into halves or thirds. Demountable walls were used as partitions in order to facilitate a changeable arrangement of rooms

²⁸³ Robert Matthew, Johnson-Marshall and Partners, *Faculty of Arts and Social Sciences Plan, the second report* (Edinburgh, 1964).

²⁸⁴ Robert Matthew, Johnson-Marshall and Partners, 1964.

and furnishing under the fixed structure. In his C.D.A. Plan, Percy Johnson-Marshall, the Planning Consultant to the University, praised the linear blocks as 'a new type of flexible teaching accommodation'.

The outward appearance of the linear blocks was also changed from what was conceived in 1959 (Figure 4.8). The pilotis were retained while the frame of dark slates was replaced by alternate horizontal glazing and yellow York stone panels which run without interruption the length of the façade. Natural stone was emphasized by the architects as being a crucial element which would give a 'permanent character' to the flexible and 'temporary' buildings. In the 1963 plan, the architects wished to create 'a straight-forward building envelope and a relatively simple window rhythm'.²⁸⁵ This idea came mainly from the aim of obtaining a permutation of room sizes inside the linear blocks. For modernist architects, the design of the interior and exterior of the buildings should have coherence. The drawer-like frames, in the façade of the 1959 plan, appeared to be so particular that they would seem to be inconsistent to the internal arrangement if the rooms behind them would be subjected to change.

While the architectural design of the linear blocks underwent considerable changes, the academic structure of the Faculty of Arts was also under transformation. In 1962, the University authorities thought the Faculty of Arts had become too large and needed to be sub-divided.²⁸⁶ The Social Sciences were regarded by many intellectuals as a crucial field in which people could manage society and control their destiny by exploring and understanding the forces underlying human society. It therefore seemed appropriate for the University authorities to establish a new academic unit. In January 1963, the Faculty of Arts was split into two: the Faculty of

²⁸⁵ Robert Matthew, Johnson-Marshall and Partners, 1964.

²⁸⁶ 'The Trend to Social Science', *The Student (Edinburgh University Newspaper)*, 17 May 1962, p. 7.

Arts and the Faculty of Social Sciences. In the same year, an application was submitted to the U.G.C. for expanding the accommodation of Schedule I and II. The idea of the University authorities was apparently to increase the accommodation of the Arts Tower and the podium while allocating Block C or D to the new Faculty of Social Sciences. But the application was rejected by the U.G.C., as they 'would not recommend grants in aid of accommodation which has been added to projects after Schedule I and II have been approved'.²⁸⁷ Because of potential overcrowding of the Arts tower, the University authorities had to re-accommodate some of the language departments the largest of which was the Department of Phonetics. In early 1963, there was a proposal for accommodating Phonetics in a further block in Buccleuch Place. This was rejected by the Department because Phonetics was in urgent need of additional accommodation for its teaching and also because it was assumed that Phonetics should be close to the Language departments in the Arts Tower. They regarded the original allocation of accommodation in the 1959 Plan for Block D as an ideal choice:

If Phonetics is excluded from Block D, much of the advantage to be expected from rehousing Language Departments in George Square would be lost for a considerable number of years. Thus, long-term plans for the Faculty of Arts would be disrupted. If Phonetics is housed in Block D, benefits would accrue not merely to Language Departments in the Faculty of Arts, but also to the Departments of Social Anthropology and the Centre of African Studies which are to be housed in Block D and which belong to Faculty of Social Sciences.²⁸⁸

²⁸⁷ 'A letter from the U.G.C. to the University of Edinburgh on 18 July 1962', *Major projects, Arts and Social Sciences Faculties*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁸⁸ 'Building accommodation for the Department of Phonetics: note by the Dean of the Faculty of Arts, May 1963', *Major projects, Arts and Social Sciences Faculties*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

An opposite opinion was that including Phonetics would disturb the homogeneous grouping of Social Sciences departments in Block D. They argued: 'Departments of Industry and Commerce will shortly need accommodation for a substantial increase in teaching and research staff. It is appropriate that the whole of Block D should be occupied by the departments of the new Faculty of Social Science'.²⁸⁹ In June 1963, the University Development Committee reached a decision to include Phonetics in Block D. Departments of Industry, Commerce and Accounting were moved to Block C. The Department of Psychology had already been excluded from Block D in 1961 because it 'drew nearly a third of its students from the Science Faculty, and in consequence the scale of its expansion was likely to be quite different from that of most Arts departments'.²⁹⁰ So, the new Faculty of Social Sciences would not have its own precinct since the two linear blocks would have a mixture of Arts and Social Science departments. To retain the existing plan of the Arts buildings without too much disturbance seems to be the major concern of the University authorities. Due to the close academic relationship of the Arts and Social Sciences, they probably thought it was better to consider their development as a whole than to divide them into independent projects. Late in the same year, when later stages of accommodation in the area south and east of George Square were being considered, the former plans of the Faculty of Arts were renamed as the plans of the Faculties of Arts and Social Sciences – a joint project.

In January 1964, John Richards submitted his report on the Development Plan for the Arts and Social Sciences Precinct, covering the whole area between George Square, Buccleuch Street and Meadow Lane. Concerning the departments in the accommodation list (Scottish History, Nursing Studies, Education, Psychology, Architecture, Geography, Arabic, Persian, Sanskrit, Turkish and offices for the

²⁸⁹ Ibid.

²⁹⁰ 'Great changes took place in the Department of Psychology', *Major projects, Arts and Social Sciences Faculties*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

Faculty of Social Sciences), the architects felt that the majority of these departments had similar requirements for accommodation. According to this observation, they proposed that the linear teaching blocks should be continued over the whole precinct of the expanded podium. If any department or lecture theatres were not able to use the linear buildings, bespoke buildings, would be allocated beside – to act as foils to the standardized blocks.

Blocks C and D would be extended westward and eastward respectively into two U-shaped buildings. Another U-shaped linear block, named Block F, was planned at the south-eastern side of this area. Since the closely-related Departments of Architecture and Geography had special requirements for their accommodation, a special building for these Departments was proposed for the south side of this area (Figure 4.9). Plants and seats were to be installed on the podium. It was expected that on the podium, students and staff could informally walk, sit and communicate with each other. Openings would be laid at intervals with trees and seats in the lower level of the podium. It was conceived that these gardens would be a place for students and staff to rest while allowing natural light and air to penetrate into the student canteen and common rooms below the podium (Figure 4.10). It would connect with other podiums of the University/Nicolson Street C. D. A..

The architectural design of these new buildings was, however, not fully accepted by the University community itself. Opposition to the University's redevelopment had already become resurgent since demolition work had started. It was reported by *The Student* in 1962 that 'many students are angry at the new plans which it is claimed, will mean that the Georgiana of George Square will be wantonly reduced to Georgian rubble to make way for what is a glorified ice-cream parlour masquerading under the name of modern architecture'.²⁹¹ The University authorities disagreed with these

²⁹¹ 'New Arts Block gets under way', *The Student (Edinburgh University Newspaper)*, 26 January 1962, p. 1.

criticisms. In the summer, the Arts Tower was opened and named after the great Scottish Enlightenment philosopher, David Hume. The editors of the *University of Edinburgh Journal* applauded the completion of the building: 'Towers are one of the oldest symbols of human aspirations, and the Hume Tower, in function as in symbol, is there – in Marlowe's words – to teach us all to have aspiring minds'.²⁹² In the opening ceremony, Edward Appleton addressed the audience: 'We are here to accept and, symbolically, to open for academic use, an outstanding example of our mid-twentieth century additions to the fabric of the University'.²⁹³

Construction of Blocks C and D started in the winter of 1964. During the construction, it was planned that temporary accommodation in Buccleuch Place would be found for the Departments of History, Fine Art and Archaeology, General and Applied Linguistics, and Biblical Studies.²⁹⁴ Soon after the David Hume Tower was occupied by the Departments of Philosophy, Classics, English, Celtic and five European Languages, overcrowding in the building became critical. By 1965, the number of people in the Hume Tower reached 2,900, more than double the original aim of 1,200. The consequence was a serious problem of congestion in lifts and on staircases. In the report, *Faculty of Arts: accommodation requirements in Quinquennium 1967/72* (1965), the Dean of the Faculty of Arts argued the case for decanting from the Hume Tower:

There will, even after the completion of Blocks C and D, be approximately 27 academic members of staff in flats in Buccleuch Place during 1966/67. If it is

²⁹² 'The Hume Tower', p. 26.

²⁹³ Ibid., p. 27.

²⁹⁴ The Department of History was housed in Old College. But due to the reshuffle of the spatial arrangement within Old College, History had to be decanted from this building in the late 1960s. Fine Arts and Archaeology were accommodated in cramped houses in the west side of George Square. They were in great need of extra accommodation, for example, workshops and picture galleries. General and Applied Linguistics in Buccleuch Place were supposed to be housed in the Hume Tower but were out of the list due to the limitation of accommodation in the building.

further assumed that staff will continue to increase over the next quinquennium at the same rate, i.e. approximately 20 per annum, there will be in 1969/70 at least 100 additional members of staff for whom accommodation will have to be found in Buccleuch Place or the vicinity, unless another major building is provided [no later than 1968].²⁹⁵

He recommended that the U.G.C. scheduled new building, and Block F on the north side of Buccleuch Place be given a high priority in the University's Building Programme. He conceived that Block F could provide accommodation for the Departments of General and Applied Linguistics, Fine Art and Archaeology plus English Language and Literature, which should be decanted from the Hume Tower. This combination, he regarded was academically sound. The need to accommodate other departments of the Faculty of Social Sciences was also pressing, in particular, Architecture, Geography and Psychology. Architecture was currently occupying houses in the north and west sides of George Square while Geography was accommodated in the northern wing of Old College. Due to the intended construction of the second phase of the Medical School extension, and refurbishment of Old College, the two departments – architecture and Geography – needed to be decanted soon. In 1965, Robert Matthew, who by now was Professor of Architecture, suggested to the University authorities that the proposed new building for Architecture and Geography of the 1964 Faculties of Arts and Social Sciences Development Plan, should also be given high priority. For Psychology, doubling of the student numbers in the Diploma in Education, made necessary a massive expansion of the Department. It was realised by the University Development Committee that 'in the long term plans for the university, it might be a good idea now to take a realistic look at the requirements of a modern Psychology department. Increasingly Psychology must be regarded as a laboratory subject, some of whose

²⁹⁵ *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special collections, University of Edinburgh Library.

requirements are just as exacting as those of the physical sciences'.²⁹⁶ Psychology thereby came to be regarded as a central bridging element for various subjects, such as Language and Communication, Computing Science, Animal Behaviour, Psychiatry, Physiology, Neurology and other fields in the realm of the Social Sciences. In 1963, Psychology had moved from Old College to an old building in the Pleasance. There was an agreement within the University Development Committee that Psychology would have a first claim to be accommodated in the area of the High School Yards so as to maintain a close relationship with the Moray House Institute of Education²⁹⁷ at Holyrood Road. The High School Yards was originally planned as a Science precinct for Physics and Mathematics. However, grants and land were available in 1964 to build a new Physics/Maths building at the King's Buildings instead. The vacated accommodation in the High School Yards was therefore allocated to the Faculty of Social Sciences.

In 1966 when Blocks C and D were completed, the schedule of staff and student numbers for Block F was approved by the University Development Committee. Also a plan for the accommodation of Architecture and Geography was proposed by RMJM. In the plan, Architecture occupied the whole of Block G and Geography was located in an extension to Block F. The two departments would share the entrance, exhibition and other public facilities. Following the structural module of Blocks C and D, the Architecture building took the cascade-like form with a complex configuration of shapes of floors (Figure 4.11). When the design of these two buildings was progressing into detailed consideration, the University authorities encountered two sorts of difficulties:

²⁹⁶ 'Minutes of the meeting of representatives of the Faculties of Arts and Social Sciences on 20 January 1965', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

²⁹⁷ Founded in the 1830s, Moray House Institute of Education had a close link with the University of Edinburgh. Finally in 1998, it merged with the University and was renamed as Moray House School of Education.

Firstly, the process of decanting existing population in the precinct was slow. It was unlikely, the University authorities recognised, that compulsory purchase orders would be promoted by the City Council if they did not consider the University/Nicolson Street C.D.A., seriously.

Secondly, the University was losing financial support from the Government. In 1966, the U.G.C. announced that they had decided to cut their grants. They estimated that the student number at universities in the U.K. in 1967/68 would be considerably greater than the figure of 197,000 to which the Government was committed to give financial support (the actual figure was 217,625). The U.G.C. considered that for the older universities, 'there can be little or no provision for increased student numbers'.²⁹⁸ They determined that the major allocation of grants would be made to the newer universities in order to facilitate their growth. The older universities were therefore asked to commit themselves to 'replacement of obsolete buildings and to making good of existing deficiencies and under-provision'.²⁹⁹

In this situation, the University authorities had to shift their main focus to improving the accommodation of the Faculty of Science. In 1965, construction of the Physics/Mathematics Institute of the King's Buildings had already been given the go-ahead and work continued from 1967 to 1969. In a special meeting of the University Development Committee, in December 1967, it was decided that Psychology, Block F and the Architecture/Geography building would be deferred to 1972/73 and 1973/74 (Table 4.1). Considering that Architecture/Geography was to be a very big and expensive building (£1,500,000 estimated in 1967), the University authorities reconsidered its location. In 1968, Geography reported that 'the Department now considered that their long-term needs could be met in High School

²⁹⁸ 'A letter from Chairman of the U.G.C. to the Principal of the University of Edinburgh on 3 May 1966', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special collections, University of Edinburgh Library.

²⁹⁹ Ibid.

Yard',³⁰⁰ since the alteration of the existing Physics building and the further move of the Physics Department to the King's Buildings, together, would provide adequate accommodation of 55,000 sq. ft. In the same year, the City Council decided to incorporate the eastern link of the inner ring road into the University/Nicolson Street C.D.A.. If the inner ring road would be approved, considerable demolition in the Pleasance would take place in the near future. The University authorities regarded it as an opportunity for planning a new University centre around the High School Yard to accommodate the Department of Psychology, the newly-established School of the Built Environment (consisting of Architecture, Geography, Civil Engineering and Building Science), and the Faculty of Music. In early 1970, the estimated needs of accommodation for the School of the Built Environment were 260,000 sq. ft and the cost of this group of buildings, new or converted, plus Block F added up to £2,250,000. The University authorities presumed that the future compensation from the City Council for the demolition of accommodation of the Department of Psychology in the Pleasance would meet part of this expenditure.

Further disappointment of the hopes of the University's plan for the Faculties of Arts and Social Science came with the U.G.C.'s *Quinquennial Estimates for 1972/77* (May 1970). The U.G.C.'s expectation for the University of Edinburgh was that the full-time equivalent (full-time plus part-time) student numbers in 1976/77 would be 6,500 of Arts-based and 6,315 of Science-based. Their estimate showed that by the academic year 1971/72, the University of Edinburgh would have teaching accommodation able to meet the needs of 6,450 Arts-based and 5,465 Science-based students. Comparing the two groups of figures, the U.G.C. realised that the big gap between the student numbers and accommodation would be in the field of Science, not of Arts. This meant the U.G.C. would not grant more funds for the

³⁰⁰ 'Minutes of the meeting of the University Development Committee on 4 June 1968', *University Development Committee ((Paper/Minutes/Meetings))*, DRT 98/005, Box 2, miscellaneous papers, Special collections, University of Edinburgh Library.

accommodation of the Arts subjects and the part of the Social Sciences which had an Arts orientation. But at that time, the Faculties of Arts and Social Sciences were far from being adequately accommodated. How the U.G.C. calculated these figures is not possible to trace, but the nation-wide tendency of encouraging a greater expansion in Sciences than Arts was obvious. For example, the load ratio of 2:1, between Science and Arts, had been recommended by the Government since the 1950s, as Chapter One has explained in the context of the impact of the Barlow Report on the postwar university expansion in Britain. In the U.G.C.'s recommendation of building priority for 1972/75, only Psychology, out of the Faculties of Arts and Social Sciences, was shortlisted, largely due to lab-based research which was becoming more prominent. Responding to the recommendation, the University authorities gave Biochemistry and Psychology the highest priority in the revised Building Programme of 1970.

The U.G.C.'s changing policies had a devastating impact on the University's plan for the extension of the Arts and Social Sciences buildings in George Square. The changing climate in city planning was another major factor which cast shadows on the University authorities' ambition. In the late 1960s, there was a call from the public realm for preserving the houses in Buccleuch Place and within the University community a growing concern for preserving existing architecture. Under these circumstances, in 1969, the University Development Committee agreed 'to record that in the future no demolition of the south side of Buccleuch Place should take place until the Development Committee of the time has fully considered and approved the proposal and the University Court has confirmed'.³⁰¹ Furthermore, in the early 1970s, decisions concerning the inner ring road were suspended due to increasing public criticism. It had a destructive impact on the University's proposals

³⁰¹ 'Minutes of the meeting of the University Development Committee on 13 February 1969', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

for the High School Yard area since it was uncertain when, and whether, the University authorities could get planning permission and compensation from the City Council for the construction of new buildings for the School of the Built Environment. Thus an integral School of the Built Environment was no longer possible.

The early 1960s' optimism that new teaching accommodation for the Faculties of Arts and Social Sciences would be forthcoming was dimming. In the 1970s, the University authorities continued to make efforts to secure new accommodation for the Faculty of Arts. After the proposal of Block F was abandoned, they brought out a proposal for another new linear teaching building in 1971, named Block H, in the area between Chapel Street and Windmill Street. In this proposal, the existing Chapel Street Church (Figure 4.12) would be demolished. Standing on the site of the Church, the teaching block would have its tutorial rooms and laboratories supported by pilotis and the graveyard and memorials would be left untouched. In 1972, the U.G.C. considered this project as being 'unreasonably expensive' and refused to approve grants. But they thought 'an alternative development on part of the site might be possible to provide a small block of lecture theatres'.³⁰² In the next year, RMJM submitted a feasibility study for these lecture theatres which were a one-storey block with an accommodation of about 800 sq. m. This building was, however, did not receive planning permission from the City Council. The proposal to demolish the Church was in conflict with the conservation movement which reached its apogee of its influences in Edinburgh in the 1970s.

The University authorities, therefore, had to find accommodation in its existing houses for its growing needs. Since the mid 1960s, flats in Buccleuch Place were

³⁰² 'Minutes of the meeting of the University Development Committee on 17 January 1972', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 3, miscellaneous papers, Special Collections, University of Edinburgh Library.

converted into offices and tutorial rooms for various Arts departments. The pressing need for accommodation for Geography led to the exclusion of Architecture from the High School Yard. Various sites in nearby areas were considered, but few could provide the adequate floor areas required by the Department of Architecture. Finally, the Argyle Brewery site in Chambers Street came to be regarded as a plausible choice. In 1972, the U.G.C. agreed to purchase properties at this site for Architecture together with Planning and to pay for the reconstruction of the Maltings, the linking staircase and the library in the Minto House. Psychology had to be excluded from the area around the High School Yard as well because the abandonment of the proposals of the inner ring road in 1973 ruled out any hope for the City Council's compensation. Moreover, the U.G.C.'s grants for the new Psychology building in Adam Street covered less than half of the whole expenditure as they only promised to pay for the accommodation of 15,000 sq. ft. rather than 35,000 sq. ft. estimated for the first phase. The existing building in the form of the George Watson's Ladies' College, on the north side of George Square, was then considered as being potential accommodation for Psychology. Originally, this building was expected to be demolished for the Medical School Extension. Lack of funds, and uncertainty over development of the Ladies' College, severely delayed this project for more than a decade until 1972 when Edinburgh Merchant Company which had the Ladies' College asked the University authorities to confirm whether they would buy the building and site since the Ladies' College planned to move out from George Square. In 1973, the U.G.C., being approached by the University authorities, indicated that they might pay for the expenditure, but 'insisted that they would not buy the site for use by the Faculty of Medicine ... [but] they might consider acquiring the site for other uses'.³⁰³ The University authorities disagreed with this decision for the reason that this site was an integral part of the Medical School Extension. There were

³⁰³ 'Minutes of the meeting of the Long-term Planning and Development Committee on 23 January 1973', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 3, miscellaneous papers, Special Collections, University of Edinburgh Library.

clearly divergent opinions between the University and the U.G.C. over the development of Medicine. As Professor A. J. Youngson put it: 'In Edinburgh, it was assumed that the Faculty would expand in area and numbers; in London, the prevailing opinion seemed to be that it would not'.³⁰⁴ Given this situation, the University authorities decided to acquire the site for Psychology. After a period of eight years, in 1981, this building was finally converted into the accommodation of the Department of Psychology.

To return to the earlier part of this history, after more than a decade's effort, in 1968, the University authorities were able to complete construction of the David Hume Tower, lecture halls, Block C (named as the William Robertson Building) and Block D (named as the Adam Ferguson Building). In the history of this planning and design process, two crucial issues of the Arts and Social Sciences buildings were highlighted: 'flexibility' and 'place'.

Flexibility was an important but common consideration in modern university planning and design in the twentieth century, since academic development always outpaced strategic planning. In the case of the Arts and Social Sciences buildings of the University, flexibility was especially important because, apart from uncertainty about the university's expansion, the University authorities had to deal with the circumstances of cost restraints and scarcity of land in the urban area. The demand for flexibility was in sharp conflicts with the claims of departmental identity, as the previous section has revealed. Whilst the majority of the post-war new universities were striving to break down the departmental boundaries and create a *tabula rasa*, the older universities continued to operate within their existing academic structures which were based on the department. What was the desired balance between collectivism and individual identity in the academic community varied with specific

³⁰⁴ Ibid.

situations in individual institutions. The plans of the Adam Ferguson Building and William Robertson Building were drawn in order to achieve a compromise whose physical expression was that the University authorities sought the convenience of a later possibility of shuffling of departments, whilst the departments were allocated their independent territories around staircases.

However, this compromise did not end up with an impressive physical environment. For these two buildings in particular, the idea of flexibility was associated with the potential element of inflexibility. All the materials and furnishings were designed following the same standard (Figure 4.13). Allowing individual choice over the design of space on the part of departments would have a severely damaging effect on the visual coherence of the homogenous interior. This extreme homogeneity, however, led to a kind of 'tyranny' upon the users. The buildings' adaptability to future changes cannot be denied; however, office-type or warehouse-like teaching accommodation was certainly out of tune with the ideas in post-war university design and is not desirable today. RMJM's reports for the plans of the Faculty of Arts and Social Sciences show how the thinking of the architects followed a five-step process: functional requirements – functional elements – planning consequences – characteristics of building types – and the components (Figure 4.14). Little consideration, it must be said, was paid to the 'personality' of the teaching environments for Arts and Social Sciences. One of the staff members of the Faculty of Arts commented in 1959: 'We have given Professor Matthew a very detailed schedule of accommodation in terms of floor areas, number of student places, and so on, but nothing at all about the kind of environment which should characterize an Arts Faculty, as distinct from efficiently organised space'.³⁰⁵ It is also worthy of notice that although the departments occupied identical territories, the complication

³⁰⁵ 'A letter from Richard M. Sillitto to the Dean of Faculty of Arts on 26 June 1959', *Arts Faculty: Block A & B, General Correspondence (1)*, DRT 97/023, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

of the plans by the application of dual corridors within the limited footprint of the buildings, generated a sense of disorientation – this sense would have been stronger if these linear blocks had been completed to their full length. The irony of the Arts and Social Sciences building was that the idea for compromise led to specific spatial forms of the buildings. However, the resulting physical environment did not facilitate an efficient compromise; rather it exerted counteractive impact, losing balance between flexibility and identity.

Another problem was that the emphasis on flexibility was so dominant that it led to a situation which failed to take into account some fundamental issues of accommodation for education. Although it is true the departments would frequently change their requirements of accommodation, some sense of stability was also necessary since teaching and research require space, of some form of permanent character, which can facilitate concentration and contemplation. So, in modern university design, it is crucial to create a balance between changeability and permanence. In the 1960s, Boris Ford, professor of Education at Sussex University, emphasized the importance of the 'sense of visual stability at every successive moment' and observed: 'The endeavour to give as much sense of completeness as possible at every stage means a great deal to undergraduates, if in their three years they are to have a sense of living in a world of today rather than of tomorrow'.³⁰⁶ However, in the interior design of the linear blocks in question, this balance seemed to be too divergent and it conveys a too-dominating sense of change. This problem reveals a general phenomenon in post-war university expansion, namely, that the adaptability of accommodation to the changing teaching environment was largely underestimated. A purposely-built space has its extent of 'elasticity', more or less, to fit changing requirements.

³⁰⁶ Asa Briggs, Boris Ford and others, 'Some aspects of University Planning', in *University Planning and Design: A Symposium*, ed. by Michael Brawne, Architectural Association Paper, 3 (London: Published for the Architectural Association by Lund, Humphries, 1967), pp. 12-23 (p.18).

In addition, the contrast between the 'permanent' appearance in natural stone and 'temporary' space inside in fact contradicted what modernist architects believed: the co-existence and harmony between within and without the buildings. The pilotis is one of the crucial elements, which was expected by the architects to contribute to the overall quality of the environment of the new constructions under consideration. However, the columns applied to the ground floor of the linear blocks do not seem to have any functional justification or symbolic connotation as with the pilotis of the early pioneers of the twentieth century. For example, pioneering modern architecture allowed free movement of activities at the lower level and protected people from rain and sunlight. In the case of the new Arts and Social Sciences buildings for George Square, the distance between the pilotis and the walls is too short to have such functions. Thus they appear to be a mere ornamentation to the buildings. It would seem that when they tried to keep the new buildings in harmony with the existing environment, the architects unconsciously compromised their ethos.

In 1964, John Richards described the Arts and Social Sciences buildings in the following terms: 'It was visualized that planning of these low buildings and spaces between them could contribute strongly to a sense of place which might be felt by everyone using the buildings'.³⁰⁷ He argued that people would have a sense of place if they stepped onto the podium. Tranquility and enclosure are the virtues of the design. A communal space was created between the Tower, lecture halls and the linear blocks, where students and staff can sit beside the handrails, walk and enjoy the views towards the George Square garden and landscaped courtyard in the lower level of the podium (Figure 4.15).

There lie two major problems with the physical form of the Arts and Social Sciences

³⁰⁷ 'The Hume Tower', p. 30.

buildings. The plan of these buildings showed a strong hierarchy with the Hume Tower being surrounded by linear blocks. It looks like a typical urban setting where public monuments are hemmed in by ordinary city blocks. The difference was that the free flow of space around the Tower was achieved at the expense of the individuality of departments, as previously argued. They appear like standardized 'drawers' which could be plugged in and unplugged from the standardized linear blocks. These physical forms seem to derive more from the architects' notion of a university than from reflections on academe itself. There is a question here that needs to be answered: what was the thinking, academically, of the University authorities about the much larger community than before? It was expected that 6,520 students³⁰⁸ would be accommodated in the Arts and Social Sciences precinct. This figure is more than three times that of the student numbers in Old College at the end of the 19th century. The figures alone do not of course reveal how the academic arrangement of this unprecedentedly large community would be managed.

The above analysis of the Arts and Social Sciences buildings reveals the dilemma the expansion of the University of Edinburgh faced. Preoccupied by meeting the target of an unprecedented rate of expansion, and hampered by the stop-go policies of the U.G.C., the University authorities failed to pay adequate attention to the university community itself. This problem of lack of coordination between academic planning and architectural design was not unique to Edinburgh. In his Alfred Bossom Lecture at the Royal Society of Arts in 1965, Hugh Casson argued the 'universities' failure to turn the searchlight upon themselves' as being one of the major problems of post-war university expansion.

³⁰⁸ This figure for 1975 was estimated by the University Development Committee in 1967. It included 4,012 Arts students and 2,508 Social Sciences students. Also 961 members of staff of the Faculty of Arts and Social Sciences were proposed to work in this area.

The Design of the First Year Science Teaching Tower

Although the original proposal for developing George Square into a science campus was shelved in 1949, the dual development was only a short term solution. Largely because proposals for the redevelopment of George Square were being prepared for application for planning permission, the desirability of representing Science in the central area was re-emphasized in late 1954. The concept of concentrating first year science students, in one central locality, was brought forward in the meeting of the University Development Committee in November. This proposal was, however, rejected by the Science departments. In a letter to the Secretary to the University, E. L. Hirst, Professor of Chemistry, expressed his doubt about this idea:

I feel that the good features are so much outweighed by the disadvantages that it would be a grave mistake to base the planning of the George Square site on this basis. Educationally I am sure it would be unwise to separate elementary from advanced and postgraduate work in an experimental science. In chemistry, for example, the department can perform its tasks adequately only if it functions as a unit in which all the grades of teaching are to be found, with students at the various levels in contact with each other.³⁰⁹

No comments from the University authorities were made in response to this letter. Three years later, however, at the meeting of the University Development Committee, in January 1957, Edward Appleton mentioned the issue again, when the General Development Plan of the University was being discussed. He pointed out two advantages of bringing Science back. Firstly, it would eliminate the inconvenience of the Arts students taking Science courses. Secondly, it would facilitate possible cross-fertilization between different disciplines. These observations received general

³⁰⁹ 'Minutes of the meeting of the University Development Committee on 18 March 1955', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

support from the Heads of the Science departments. However, warnings were issued by some distinguished Science professors. C. H. Waddington, Professor of Zoology argued that, 'unless all the Pure Science was included, the plan would not work'.³¹⁰ Professors J. P. Kendall (Chemistry), E. L. Hirst (Chemistry), F. H. Stewart (Geology) and Swann (Zoology) emphasized that 'there [should be] no splitting either of individual Departments or of the Pure Science subjects as a whole'.³¹¹ It was obvious that to bring all Science departments back to the city centre would involve acquiring a considerable amount of land in the very heart of the City. At this period, the University authorities were optimistic about such a situation because they thought there would be sufficient space in the University Development Area that had already been approved by the City Council a few years earlier. In the same meeting, the Secretary to the University expected that: 'There were no serious obstacles to a further enlargement of the area, possibly by the inclusion of sites which would form links between George Square, the Old College and High School Yards'.³¹²

A Sub-Committee for considering the issue of transfer was appointed at this meeting. After discussions, the Sub-Committee chose Biological Science (Botany, Chemistry, Geology, Zoology, Genetics and Biophysics) as the first phase of the transfer, although some members had the reservation that these departments could be better accommodated in the King's Buildings than the George Square area. They felt this was better than splitting the basic teaching and research of these departments. It was further recommended: 'It would be most desirable to effect the transfer of the departments in each category as nearly as possible at the same time, since Geology draws most of its advanced students from Chemistry, and the three departments of

³¹⁰ Ibid.

³¹¹ 'Minutes of the meeting of the University Development Committee on 22 January 1957', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

³¹² Ibid.

Zoology, Genetics and Biophysics are closely interdependent'.³¹³ Apart from this group of departments, Mathematics, it was proposed, should move to High School Yards so that it could have a close alliance with the Department of Natural Physics which was already accommodated there. The need for expanding and re-organising the widely separated laboratories of these two departments led to Spence's 1957 draft plan and perspective sketches for the rebuilding of this area³¹⁴ (Figure 4.16). While the matter of transfer was being considered, the Sub-Committee also emphasized that 'ultimate transfer from the King's Buildings should not in any way prejudice immediate extensions of the departments which require to meet the additional influx of students in the next few years'.³¹⁵ Construction of a new Agriculture building and Engineering building in King's Building would be started in 1957 and 1958 and, according to the 1960 Draft Building Programme, a new Refectory and a Boiler House in the King's Buildings were expected to be constructed in 1963.

However, in the late 1950s, the first phase of the transfer was changed to First Year teaching of the departments of Biological Science. In 1958, *The Architects' Journal* had editorial comment about the transfer: 'It seems a wise and bold decision, but it would have been less difficult to implement if it had been made sooner'.³¹⁶ Though optimistic about the whole policy, the University authorities had to recognise the following difficulties: (1) There were fierce public criticisms about the University's development. Ultimate transfer must take a considerable period of time; (2) Within this long and indeterminate period, the immediate extensions of various departments in the King's Buildings would carry on despite the University's general policy. It

³¹³ 'Report of the Committee appointed to consider the transfer of science departments from the King's Buildings on 22 February 1957', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

³¹⁴ Since late 1956, the High School Yard Development Sub-Committee was established and started to consider the issue of planning in High School Yard.

³¹⁵ 'Report of Committee appointed to consider transfer of science departments from the King's Buildings on 22 February 1957'.

³¹⁶ 'British Universities: part one', *The Architects' Journal*, 127 (January 1958), 1-33 (p. 28).

would become more and more difficult for the Science departments to move out from the King's Buildings if more extensions would be made on this site. Taking these circumstances in consideration, the University authorities probably felt that if they wanted to adhere to their original plan of bringing Science back to the city centre, the transfer of First Year Teaching seemed to be most feasible, even though it would have the disadvantages mentioned previously.

The Sub-Committee considered that a possible site for the First Year Science Teaching would be at the north-eastern corner of George Square, the location originally designed for the Convocation Hall in Spence's 1955 plan. The proposal for the Convocation Hall was based on the view that the McEwan Hall was not suitable for some university-wide lectures and musical recitals. Although this kind of assembly hall, with 1,200 to 1,500 seats, would be a useful provision in the future, the Sub-Committee considered that it was not an urgent need. Furthermore, construction of the Hall was not possible in the near future since a 600-seat lecture theatre was being proposed at the south side of George Square and had been included in the schedule of accommodation of the Faculty of Arts in 1956. It seemed unlikely that the U.G.C. would generously pay for another multi-purpose hall in such close proximity. Later in 1962, it was proposed that this hall be located beside the shopping centre of the University/Nicolson Street C.D.A..

Alan Reiach was appointed as architect for the First Year Science Teaching buildings. The preliminary design came out in 1961. Reiach's choice was a combination of an eleven-storey laboratory tower, with flanking lecture theatre wing and linear tutorial blocks, conforming to the design of the Faculty of Arts buildings (Figure 4.17). Differing from the design of the Hume Tower and the linear blocks of the Arts and Social Sciences buildings, the laboratory tower and tutorial block kept the same motif, however, of uninterrupted horizontal windows. In order to coordinate with the

University/Nicolson Street C.D.A. Plan, the laboratory tower was placed onto a podium with an entrance from Crichton Street on the north. The outer walls of the laboratory tower would be of precast concrete slabs with light grey mosaic facings, while the window-walls would be made of anodised aluminium framing, with porcelain enamelled steel infilled panels. Unlike the integrated staircase in the floor plan of the Hume Tower, the staircase of the laboratory tower was expressed as an independent block, vertically setting into the main volume of the tower. What the architect tried to do was to create a dynamic effect through the manipulation of the mass of the buildings.

At the same time, the University authorities negotiated with the U.G.C. over the schedule of accommodation. In 1962, the U.G.C. rejected the application. They argued that it was much more expensive to build a high rise laboratory than a normal one of only a few storeys, because the tower would need special treatments of the structure and ventilation, which were important in Science laboratories. Another underlying reason was that there were few precedents for laboratory towers in the British universities. This made it more difficult for the U.G.C. to estimate accurate costs. In the 1960 *Memorandum on Science Buildings*, the U.G.C. had reported that the uncertainty of scientific teaching requirements had caused considerable problems in making appropriate estimations of expenditure. They therefore wrote to the University:

You are really trying to put onto this site considerably more than it will reasonably and economical hold, and even then will find yourself tight on space. And we really cannot authorise the spending of large sums of money merely on overcoming difficulties of this kind when the expenditure of the same sums on more normal types of building would yield so much more in

terms of students housed and taught.³¹⁷

In their reply letters, the University authorities restated their idea of 'allowing greater and easier interchange between Faculties by siting the First Year Science teaching in the central area'.³¹⁸ They argued that the area bounded by Crichton Street, Chapel Street and Windmill Street was the only available central site at that moment which could fulfil their aspirations.

Responding to the University's arguments, the U.G.C. questioned the policies of the University authorities: 'In view of the pressing need to make the available money go as far as possible in providing accommodation for residence, teaching and research, must not the Committee weigh up very carefully whether it is right to spend such large additional sums in order to accommodate your students on this central site?'³¹⁹ The University authorities explained: 'In any case any other site would necessarily be less well placed. Even if such a site could be found it is most improbable that the Planning Authority would agree to its development at [such] a plot ratio – 2.9, as [this site]'.³²⁰ After prolonged negotiations, in 1963, the U.G.C. finally agreed to pay for this project. Financial considerations dictated that it would be built in two schedules: Schedule I comprised the laboratory tower and a lecture theatre wing, whilst Schedule II was the tutorial block. Schedule I would have a total floor area of 90,000 sq. feet, with the limit of expenditure of £ 797,000 (excluding the expenditure on the installation of full mechanical ventilation). The whole complex

³¹⁷ 'A letter from the University Grants Committee to the University of Edinburgh on First Year Science Building, 1962', *Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

³¹⁸ 'A letter from the University of Edinburgh to the University Grants Committee on First Year Science Building, 1962', *Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

³¹⁹ 'A letter from the University Grants Committee to the University of Edinburgh on First Year Science Building, 1962', *Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

³²⁰ 'A letter from the University of Edinburgh to the University Grants Committee on First Year Science Building, 1962'.

could provide accommodation of approximately 141,000 sq. feet with the capacity for accommodating 600 to 700 students. It can be recorded here that though the University authorities secured grants for some projects, like the laboratory tower, the contrast between the U.G.C.'s cost restraints and the high expenditure³²¹ to build in the urban area would later increase the vulnerability of the University's development to the changing governmental policies and urban situation.

Construction of Schedule I began in September 1963. When the laboratory tower was completed in early 1966, it was named the Appleton Tower, in order to commemorate the great achievements of the past Principal, (Sir) Edward Appleton, both in scientific and academic life and in the wider administration of the University of Edinburgh. The two-storey entrance hall was placed between the mass of the tower block and the volume of the lecture theatre block so that top-lighting was facilitated. The full glazing of the staircase tower, at the far end of the hall, and the top-lit windows allowed abundant natural light to penetrate into this concourse. At the entrance level, there was access to three 200-seat lecture theatres, while tutorial rooms, and two larger lecture theatres with capacity of 325 seats, were placed at the mezzanine level. It was claimed by the architects that this main concourse, with its straight-forward way of organising different functions and space, was a manifestation of modern architecture and constituted an image appropriate to a modern university (Figure 4.18). The upper floors were open planned Science laboratories with a structural module of 40 feet \times 18 feet (Figure 4.19). The Department of Chemistry occupied the second to fourth floors while each of the Departments of Geology, Zoology, Biology and Botany was allocated one floor (Figure 4.20). The elevated

³²¹ The cost of the Arts Tower of the University of Edinburgh was 92 shillings per square foot compared with the average cost of 80 shillings of a CLASP teaching building. The expenditure of the Science Tower was, however, 173 shillings per square foot, higher than the 140 shillings of the 'most expensive new university': Sussex University. The statistics of the costings was the calculation from the sources as follows: (1) Richard Dober, *The New Campus in Britain, ideas of consequence for the United States* (1965) and *Major Projects* (University of Edinburgh Record).

entrance and the gently sloping site from north to south allowed services plant and main stores to be placed under the Concourse without excavation. These facilities could have a direct access from the south side of the complex. Ventilation plant and a cooling tower were placed on the top of the tower in order to avoid the excavation caused by installation of these plants in the basement. This building received a high commendation in the editorial assessment of *The Architects' Journal* in 1967:

The plan and sectional arrangements of the building are particularly interesting, in that they solve complex problems of movement and interconnection in a most direct manner possible. [There is] a clear expression of the fundamental accommodation units and movement areas... The architects have also analysed carefully the single student's work-space, with its attendant considerations of activity, space, sound, sight, heat, light and ventilation.³²²

When Schedule I was under construction, planning of the accommodation for the Science departments, in the central area, underwent considerable changes. Due to the pressing need for accommodation of the Social Sciences departments, by late 1964 the University Development Committee decided to move the Departments of Physics and Mathematics from High School Yard to the King's Buildings. In 1966, a new Physics/Mathematics Institute, with supporting facilities in the King's Buildings, was approved by the U.G.C. as the major project of the University in 1968/69. During the five years from the completion of the Appleton Tower, no serious considerations of the planning of the First Year Science teaching were taken. It appears that the University authorities' mind was occupied by other projects, such as the Arts and Social Sciences buildings, Medical School Extension and the University/Nicolson Street C.D.A.. In 1971, the planning of the Science departments in the central area was put onto the agenda again. It was agreed within the University Development

³²² 'Teaching laboratories for the University of Edinburgh', *The Architects' Journal*, 146 (November 1967), 1169-84 (pp. 1175-76).

Committee that they should 'concentrate first year teaching in and around the Appleton Tower, while enabling other Faculties to concentrate their teaching in areas consistent with their long-term destination'.³²³ It was expected that this kind of concentration would lead to more efficient use of the space in the Tower. Also the Committee had a proposal for constructing a computer centre at the site immediately north of the Appleton Tower. In the late 1960s, with the rapid development of the computer, Computer Science was itself fast growing into an academic subject in the University and its need for accommodation was regarded as urgent. The Committee conceived that capital grants could be available from the Computer Board if they included the central terminal of the regional computer in the project. However, in the next couple of years, the pressing needs for a Student Centre Extension and the Dental School and Hospital led to abandonment of this proposal. The site was given over to the more mundane purpose of service area and car parking for those buildings (Figure 4.21). Schedule II of the Appleton Tower complex, the tutorial wing, was also shelved in 1973 due to the City Council's unwillingness to give approval for the demolition of the remaining houses in the north part of the east side of George Square. This event brought an end to the University authorities' ambition of bringing all the Science departments back to the central area.

Towers

For the Arts and Science buildings, the tower concept was an important element which provided more teaching accommodation on limited land. However, and more importantly, for Principal Appleton and his architects, the tower was an architectural form which reflected their aspirations and aesthetics, in line with what had been said in the opening ceremony of the Hume Tower in late 1963. As these were buildings

³²³ 'Minutes of the University Development Committee on 25 May 1971', *University Development Committee (Paper/Minutes/Meetings)*, DRT 98/005, Box 3, miscellaneous papers, Special Collections, University of Edinburgh Library.

for expanded public education, the towers were hailed by the architects and their adherents as representation of democracy and humanity. The towers had their virtues in design and, in particular, Appleton Tower had its advantages in functional term. The proportion and details of the towers were carefully calculated. The editors of *The Architects' Journal* had the following comments concerning the Appleton Tower:

Finishes have been chosen with the express purpose of reducing maintenance in use... Particularly commendable are the high quality exposed concrete finishes and restrained colour palette. The light grey mosaic finish has the virtue of looking attractive even when dripping with rain... Finally, as befits a building in a romantic city, the Science building has a silhouette which manages to avoid any suggestion of whimsy, but at the same time has more subtlety of outline than most of its recent neighbours.³²⁴

The towers, however, were not generally pleasing to the people who used them. The divergence of view lies in two aspects:

(1) As Alan Colquhoun commented about modern architecture: 'The Modern Movement tried to create a unity between industrial building technology and a new system of significance. But industrial technology on its own was unable to provide any but the most generalised patterns of meaning in architecture; and for this reason it was forced to invent and define a new set of aesthetic rules'.³²⁵ Like other cases of contemporary architecture, the new aesthetics shared by the architects and the University authorities were too subtle to be understood by the general public. Naming the buildings after the great men in the history of the University, David Hume, Edward Appleton, William Robertson and Adam Ferguson, was an attempt at

³²⁴ 'Teaching laboratories for the University of Edinburgh', pp. 1176-1179.

³²⁵ Alan Colquhoun, *Essays in Architectural Criticism: modern architecture and historical change* (Cambridge, Mass.: MIT Press, 1995), p. 101.

applying a shared cultural consciousness to bridge this difference in aesthetic values. However, the process and ideas of design of these buildings, which were based on fundamental requirements of higher education and economy, had little to do with the achievements of these distinguished figures.³²⁶ Although some scholars, such as Clive Fenton argued in his PhD thesis, *Appleton's architects: building the University of Edinburgh (1949-1965)*, that monumentality was indeed achieved by the height and materials of rubble stone, the monumentality, in the sheer volume of the buildings, was not competent to fulfil the above role. Thus, this desired link turned out to be the added-on cultural meaning – more arbitrary than integrated with the new aesthetics. This disconnection between meaning and aesthetics of architecture, contributed to the failure of these buildings to overcome the negative side of the George Square controversy. The demolition of so many old buildings was so striking that the chimerical virtues of design of the new buildings became insignificant.

(2) Another point of criticism was the 'revolutionary' effect of the towers upon the City's skyline. In 1967, William Holford was commissioned by the City Council to draft a *High Buildings Policy* for the City. In his report, it was commented: 'The high buildings in George Square have interrupted the apparent continuity of [the] natural landscape between Arthur's Seat and the Meadows'.³²⁷ This remark was a criticism of the intrusive effect of the towers on cityscape through the sheer height, uncompromised forms and the location in-between various important natural and urban landscapes – Arthur Seat, the Meadows, the Castle and the Craigmillar Castle.

³²⁶ This problem can be clearly identified from the previous exploration of the planning history of the Faculties of Arts and Social Sciences buildings and the First Year Science Teaching Tower. More specifically, in the published speeches of the official opening in 1963 of the Hume Tower and correspondences between architects and the University authorities, there was little hint of how the spaces and architectural details were configured in some extent oriented to the spirits of the people they would represent.

³²⁷ Edinburgh (Scotland). Town Council., and William Holford and Associates, *High Buildings Policy: The City and Royal Burgh of Edinburgh, a report prepared for the Corporation of the City and Royal Burgh of Edinburgh by William Holford & Associates (Edinburgh) Architects and Planning Consultant* (Edinburgh: Holford and Associates, 1967), p. 49.

Holford's report showed that, in terms of height, the towers became a dominating factor in the South Side's skyline, exceeding other important buildings such as the McEwan Hall in this area. Moreover, design of these lofty forms – simplistic box shapes – lacked due consideration of those of existing landmarks in the city centre (Figure 4.22). The application of materials and colour of the two towers were also under blame by contemporary critics in the 1960s. In the article *George Square, Town versus Gown in Edinburgh* (1968), Tim Rock commented: 'Both towers from almost any viewpoint, when are bathed in sun, make one thing very clear: add 'whiteness to brightness' in Edinburgh and it will not wash. Imported mosaic, York and Portland stone coupled with large areas of glass are alien to Edinburgh's monochrome tradition and chilling climate'.³²⁸ He further criticised 'the incompatible aesthetics': 'The conjunction of York stone and slate [for the Hume Tower] has all the appearance of clipped-on rusticity – the gables ask to be completed'.³²⁹ In addition, it is worthy of notice that the strengthening of the wind effect around the two towers do not, in bad weather in particular, generate an amicable microclimate for people who are working and studying in this area.

Although the two towers in George Square were heavily criticised by people in the 1960s, some would argue that more generally, in the history of modern architecture, there are many examples of controversial buildings that have gradually gained the sympathy of the public. However, this exception does not apply to Edinburgh. The towers failed to convince their critics from with the passing of time. Down to this today, the two towers are still among the most reviled modern constructions in the City of Edinburgh. One example of this fact was the controversy of the action of listing the Hume Tower as 'A-class' and offering the Appleton Tower the listed status by Historic Scotland in 2005. It provoked considerable criticism in the public realm

³²⁸ Tim Rock, 'George Square: Town versus Gown in Edinburgh', *The Architectural Review*, 856 (June 1968), 433-44 (p. 434).

³²⁹ *Ibid.*

and within the University community itself.³³⁰ There was strong pressure that these buildings should not be listed at all – the outcome of this controversy was that the Hume Tower was listed ‘A’ while the Appleton Tower did not have such a luck. There is little sign that they will endear themselves to the people in the City. Even less will they ever be ‘inspiring’. The public reaction against the two towers was apparently due to their negative impacts on cityscape; however, it revealed the dilemma of their functionalist design – much rhetoric, but not of integrated meaning with the new aesthetics, as previously argued. The two towers of the University lack any special quality which may endure as they age, such as, some great ideas or expression of the achievement of structural engineering. The Hume Tower and Appleton Tower may have looked resplendent when they were newly built, but, under the strong effect of weathering, the quality of their finishes becomes less than ideal (Figure 4.23). Of the two, the David Hume Tower may be commended for retaining much of its original appearance due to the use of durable and expensive cladding materials.

The towers were controversial and they revealed the social and political problems of local and national contexts during the post-war period. The form of the two towers was the crystallization of various forces shaping post-war Edinburgh, such as mass education and dealing with planning restrictions and controversy. Driven by the modern movement and the national momentum for university expansion, which was a seemingly irresistible force, the architects and the University authorities were optimistic that most of the existing houses in the area of South Side would be replaced by new buildings. Thus, little attention was paid to the intermediate impacts of the new buildings – the two towers in particular – on their immediate surroundings. In the official reports and proposals of the architects to the University of Edinburgh, throughout the 1950s and 1960s, the only study of the visual impact of the new

³³⁰ Claire Smith, “Ugly’ tower block to join the A-list’, *The Scotsman*, 15 November 2005, p. 21.

constructions on the cityscape was Basil Spence's 1955 preliminary sketch which illustrated a new silhouette with the view from the Meadows to Arthur's seat (Figure 4.24). However, in this drawing, the existing urban fabric was largely out of view, blocked by the gigantic new constructions proposed by Spence. There is a possibility that Spence deliberately avoided a direct representation of the new among the old, given the fierce growing opposition to the redevelopment of George Square. This strategy might have been to the advantage of the University's immediate redevelopment plans because their relation was intentionally blurred. But postponement of the inevitable conflicts between new and old was not conducive to facilitating a genuine communication between the University and the City. The local authority did not possess a comprehensive view of these conflicts, since zoning, as proposed by Abercrombie, had the side-effect of isolating individual developments from the overall setting.

2. Medical School Extension

The need to expand the accommodation of the Medical School, in Teviot Place, was expressed before the breakout of the Second World War. At that time, some minor additions and changes to the existing Medical School Buildings had been made despite the interruption caused by the War. No professional planning, however, was attempted until 1946 when Charles Holden presented his preliminary proposal for George Square. In his plan, Holden added a third courtyard to the two existing courtyards of Rowan Anderson's Medical School and connected this block with a new symmetrical building on the eastern half of the north side of George Square (Figure 3.14). In 1949, the City Council gave its general approval to the Medical School Extension on the north side of George Square. As Holden's plans only dealt with the general patterns of redevelopment of the Square, not specifically for the north side, the University authorities decided to hold an open competition to explore

the Medical School Extension in more detail. The general requirement was: '[To design] a building to give the maximum accommodation on that part of the site already available, which at the same time would not be out of harmony in form, materials and scale with the remainder of George Square, whether the remainder was redesigned (as proposed by Dr. Holden) or not'.³³¹ Thirty-nine entries were received in 1950. The plan of Walter Ramsay's winning entry of the competition consisted of three parts: west block, central block and east wing. The west block located the main entrance to the whole complex through a courtyard and accommodated the School's central library, administration and the Departments of Physiology and Anatomy. The Departments of Surgery and Public Health were allocated in the east wing. In the central block, the ground floor level contained an assembly hall with capacity for 600 seats and the common rooms for students and staff. The upper levels accommodated classrooms and research laboratories for other Departments such as Pharmacology and Biochemistry. Larger laboratories and classrooms were planned on the north side of the central block while smaller and private spaces, especially for members of staff, were placed on the east side towards George Square (Figure 4.25 & 4.26). The defects of Ramsay's design, as Mackenzie, the Assessor of this competition, pointed out, were the inefficiency of phasing and the architect's lack of familiarity with the requirements of a Medical School. However, it was expected that these problems could be counterbalanced by the flexibility of Ramsay's plans.

Ramsay divided the façade to the new buildings fronting the George Square garden into four parts, connected by three doorways of relatively lower height than the main volumes. One of the difficulties of the Medical School Extension was the different architectural scales of the existing Medical School and Georgian houses of the Square. Ramsay's solution was to create a symmetrical setting by creating three

³³¹ 'Result of the architectural competition for the extension in George Square of Edinburgh University Medical School, the report of the Assessor, Mr. A.G. R. Mackenzie', *The Architect and building news*, 9 February 1951, p. 165.

four-storey sections of equal length, while raising the west-most portion of the complex to the height of the existing Medical School Building. Ramsay's design received compliments from the professional community, as the following remark indicates: 'The winning entry by Mr. Walter N. W. Ramsay... is outstanding by its clear grasp of the architectural character of the problem, and by the sensitiveness with which the author has approached its solution'.³³² It is most likely that the Georgian proportions of the partitioned façade and the inherent classicism indicated in its verticality and monumentality created through the quasi-symmetrical setting, appealed to the Assessor and other critics. It promised a happy relationship with the existing houses and Holden's proposals for the other three sides of George Square.

A particular problem the competition needed to resolve was the juxtaposition of various buildings, connected by cramped and zigzagged service roads, caused by piecemeal development at this site during the previous 150 years. Ramsay's solution was to reconfigure the spatial relations between the individual buildings within the site, and the Medical School Building, the Reid School of Music and Teviot Row House. He proposed a series of elongated rectangular courtyards derived from the motif of Robert Rowan Anderson's design for the existing Medical School Building. This spatial arrangement also took into consideration the needs of the service roads. Since service connection was not available from the Middle Meadow Walk and the Reid School of Music, Ramsay designated the service connections from north of the central complex and Charles Street so that the courtyards in the north and east wings, could also function as service yards for the whole complex.

When exhibited in the McEwan Hall in 1951, Ramsay's design was fiercely attacked by the Student Architects Group of Edinburgh which consisted of Douglas Stephen and Robert Maxwell, prominent architects in Britain. They regarded his design as

³³² 'Scheme of extensions to Medical Buildings at Edinburgh University', *Building Industries and Scottish Architect*, February 1951, p. 55.

being 'dishonest':

The designs presented a timid frightened façade to George Square, a façade which was simply a lie: a lie in its faked fenestration, its cloak of bastard classicism a lie too... The façade, quite pleasantly proportioned and composed, was not of a new Medical Block but of a rather unimaginative domestic street... The planning showed no clarity of thought and had the look of being coaxed and squeezed together leaving only an occasional damp, dark courtyard.³³³

This radical criticism led to a suggested alternative by the Group (Figure 4.27). The design was a huge single complex of seven storeys. It was, they considered, an 'honest' representation of Corbusian architecture as also shown in their Layout Plan for the University's development (Figure 4.28). The suggested plan for the Medical School Extension offered an interesting configuration of space behind the new building, such as the landscaped garden between the new building and the Union. However, there was lacking any consideration as to how the new extension connected with the existing medical block. In addition, the relationship between the hexagonal auditorium and the Reid School of Music was unresolved. This alternative, proposed by the Student Architects Group, by no means had official endorsement, but it represented an emerging appreciation of provocative modernism to the planning authority.

In 1954, Basil Spence replaced Holden as the Consultant to the University and he included Ramsay's proposal in his plan for George Square, together with his design for its three other sides. When the University authorities applied for planning permission for the redevelopment of George Square, in 1955, the officers in the

³³³ The Student Architect Group, Edinburgh, *A plan for the University, 1951*, Edinburgh Room Archives, The City of Edinburgh Library.

Planning Sub-Committee of the City Council expressed dissatisfaction with the design for the extension to the Medical School on the grounds of its relationship with the other three sides of the Square. During negotiations with the planning officers, Basil Spence convinced the Planning Committee that in further stages of planning, the rigid design of the new Medical buildings would be 'softened or humanized by the addition of architectural details, such as balconies, which, would cast shadows'.³³⁴

Planning permission for the Medical School buildings was granted at this meeting of July 13, 1955 and construction of the first phase of the west wing of the extension started in 1956 – following revisions overseen by Basil Spence. In these proposals, the façade retained its original design, but its southern part was clad with rubble stone in contrast with the natural stone panels of the other three sides of the building. The intention was to harmonize the new building with the older ones by application of similar materials. The Physiology and Pathology Building was formed using a light steel structure (Figure 4.29) – the only steel-structured building proposed for George Square. Due to the scarcity of this material after the War, and the cost restraints of the U.G.C., steel was not able to be widely used for construction in postwar university expansion in Britain – compared, for example, with concrete.

In the 1958 Building Programme, it was projected that the Physiology and Pathology Building would be finished in 1962 and later phases of the Medical extension would start immediately afterwards. Considerable changes were made to the façade of the Medical buildings and some new ideas were introduced. In the 1957 revised plan, the central block of the new Medical buildings was replaced by a garden. The extension was divided into two: the western and eastern parts. The underlying idea of this

³³⁴ 'Minutes of the meeting of the Planning Sub-Committee of the City Council of Edinburgh on 13 July 1955', *Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

change was to build a visual and pedestrian link between the George Square garden and the Reid Music School building and the McEwan Hall and to create a proper setting for these imposing buildings. This setting was further to be accentuated by the architectural treatments of the western and eastern parts of the Medical School Extension. These were three-to-four storey linear blocks with courtyards inside, being flanked by taller blocks at the western and eastern ends of the north side of the Square. Through the difference in height with the older buildings on the north, it was anticipated that the new linear blocks would help to reveal the silhouette of these established and architecturally interesting buildings. The most striking change in this plan was the architectural design (Figure 4.30) which overthrew the motif of the 1951 plan and adopted the ideas in Spence's design for the three other sides of George Square (Figure 4.1). The fresco on the eastern gable of the west wing was in line with Spence's water and sculptures which would add artistic quality to the built environment.

Corresponding with these changes on the north side of the Square, the George Square Garden was reconfigured by Basil Spence. He proposed that the parallel axis from the McEwan Hall to the proposed garden and the entrance of the new University Library, would meet at the centre of this open space (Figure 4.31). In 1962, the 1957 plan was further revised in order to coordinate with the University/Nicolson Street Comprehensive Development Area Plan. Due to fierce opposition on the part of conservation groups to the University's development schemes, the architects to the University suggested the retention of only two tall blocks, namely, the Arts Tower and the First Year Science Tower, in their plans. In the C.D.A. Plan, the proposed tall block, at the east end of the Medical School Extension, was replaced by a three-storey linear block which would connect to the pre-medical tutorial block on the east side of the Square (Figure 3.26).

The proposal for the garden on the north side of George Square had some appeal. It was, however, not clear, with such a large open space and low rise buildings, how the 1959 and 1962 plans could compensate for a considerable reduction in the accommodation capacity compared with the 1951 and 1955 plans, given that additional accommodation was regarded as a paramount factor for this project. In order to resolve the problem, Ramsay, in 1963, revised the plan of the west wing of the Medical School Extension. On the ground floor, Ramsay proposed lecture theatres beside the entrance so that the western courtyard was blocked (Figure 4.32). On top of the lecture theatres which occupied two storeys, a courtyard reappeared to provide natural light to the upper floors.

After due consideration, the University authorities decided that the rest of the west part of the extension should be carried out in two stages, namely Phase 1b and 1c. The Dean of the Faculty of Medicine, however, had reservations about this phasing: 'Sections 1a, 1b and 1c of the Medical Buildings were really only one building; its construction had been disrupted gravely already and further postponement would cause incalculable damage to planned development in the Faculty of Medicine'.³³⁵ The reality was exactly as the Dean predicted. The governmental grants were never enough to cover all the projects the University authorities desired. Between 1960 and 1963, the U.G.C. approved grants were £900,000 whilst the University authorities' estimation of expenditure on the building programme, during that period, was £1,975,000. The cost of the whole Medical School Extension, alone, was far beyond £1 million.³³⁶ With the pressing need of the Faculty of Arts and the requirement for Halls of Residences, further stages of the Medical School Extension were severely interrupted.

³³⁵ 'Minutes of the meeting of the University Development Committee on 9 March 1961', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

³³⁶ In 1949, Ramsay's estimation of cost of the Medical School Extension was £1,196,750. Between 1951 and 1961, there was a considerable rise in cost of materials and labour.

In addition to the financial reasons outlined, the problems of decanting and re-accommodation were other contributory factors to the interruption of the Medical School projects. It was originally expected, by the Faculty, that new developments at the sites of the University's teaching hospitals, the Royal Infirmary in Lauriston Place and Western General Hospital beyond Stockbridge, would vacate some clinical departments from the existing Medical building so that additional accommodation would become available for pre-clinical departments. However, the situation in 1962 indicated that 'no substantial new academic facilities, on either site, would be ready for occupation before 1972. Furthermore, the building of the academic area at the Royal Infirmary was likely to be in two phases, with the major part being in the second phase'.³³⁷ That meant that some clinical departments would have to stay in the cramped Medical School Building for a considerable period of time. Moreover, the Departments of Obstetrics and Gynaecology, which occupied No. 60 George Square, had to be decanted, as negotiations with the U.G.C. about construction of the First Year Science Building in that site were well under way. Consequently, there were no adequate spaces nearby for temporarily decanted departments. The cramped state, the University authorities felt, would be aggravated by the loss of accommodation caused by the demolition of existing Medical buildings during the construction of the second and third phases of the west wing of the Medical School Extension – as the existing accommodation of the Department of Surgical Science, at No. 12 George Square, and the main animal houses needed to be cleared in due course.

After due reflection, the University authorities decided to postpone the construction of these two phases to 1967 and 1969. Also, it was realized that the accommodation

³³⁷ 'Accommodation for departments in the Faculty of Medicine, 31 May 1962', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

in these stages, originally designed for School administration, would not have adequate capacity for the proposed tenants – the Departments of Pharmacology, Physiology, Surgical Science and Biochemistry. The Faculty of Medicine decided that ‘only the Department of Biochemistry may be accommodated there permanently’.³³⁸ The intermediate arrangement of accommodation in the existing Medical School Building, was conceived as follows: Pharmacology, Anatomy, Microbiology and Biochemistry would remain in the existing building until 1972 when Biochemistry and Microbiology would move out to free accommodation for the Central Medical Library (Figure 4.33 & 4.34). The Department of Surgery would then move to the hospitals with the Wilkie Lab being demolished.

Emerging problems of site availability soon led to a reconsideration of this intermediate arrangement. With the Department of Psychological Medicine to be moved to Jordanburn Hospital, a branch of the Edinburgh Royal Hospital, No. 1 and 2 George Square would soon be free for occupation whilst the site of No. 10 to 12 George Square would not be available for construction of the second phase as the Department of Architecture – their occupants – was having difficulty finding new accommodation suitable for its requirements. It would be more reasonable, the Faculty of Medicine felt, to reverse the previous sequence of construction proposed in 1962. In 1965, the University authorities agreed with this revision.

What the Faculty needed to do in the next step was to determine which department would occupy this new proposed building, namely phase 1z, at the east end of the Medical School Extension. The focus was on two candidates: Biochemistry and Pharmacology which both urgently needed additional space. Supporters of the case of Biochemistry argued that occupancy of the new building by Pharmacology would only provide Biochemistry with the two-thirds of the accommodation it required by

³³⁸ ‘Accommodation for departments in the Faculty of Medicine, 31 May 1962’.

decanting Pharmacology from Anderson's Medical buildings, while occupancy by Biochemistry would give an equal increase of accommodation to both departments. The opposite opinion based its considerations on the long-term planning of the Medical School. It was argued: 'If Biochemistry takes the new building, its teaching labs will ultimately be provided in [Phase] 1b. Although it would be viable to have the Department split between the two buildings with other departments in between, it will be more sensible for the rest of the Department to occupy [Phase] 1c as originally planned'.³³⁹ For them, the existing Watson's Ladies College was a physical barrier to the achievement of coherent Biochemistry accommodation. Whether and when the College could and would move out of George Square was still uncertain. In addition, the University authorities had difficulty in allocating adequate funds for acquiring properties and construction for the Medical School Extension. Under these circumstances, if Biochemistry would occupy the new building, the coherence of the Department would suffer from inevitable interruption in building programmes for the Medical School Extension.

The decision of the University authorities was in favour of the latter view of allocating the new building to the Department of Pharmacology, on condition that 'the figure (Table 4.2) shown for a Medical Building in 1966/67 is the balancing figure that appears to be available after the other commitments have been met'.³⁴⁰ As the condition indicated, priority was not given to the Medical School Extension. Some delay did happen and the Phase 1z was finally completed in 1969. Designed by Walter Ramsay, it is an L-shaped building of seven storeys, six of which rise above the George Square level. Its architectural design departed radically from that of 1957.

³³⁹ 'University of Edinburgh: Planning of North George Square (note for Development Committee, January 1965 by Professors Fisher and Perry)', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

³⁴⁰ 'Minutes of the meeting of the University Development Committee on 25 January 1965', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

Facing the George Square garden, the ground floor plan was recessed to expose pilotis. It was expected that these pilotis would run continuously across the Square frontage of the new Medical School buildings. This would chime with the pilotis of the Main Library and colonnade of the linear blocks in the south and east sides of the Square. The pilotis were topped by bay windows of the first floor seminar rooms. Except for the exposed concrete columns and the entrance wall's rugged concrete surface, the façade of the Pharmacology building is clad in natural stone panels. From the second floor, a sort of layering effect was created, in which the wall of the upper floors protruded several inches from that of its lower level (Figure 4.35). The proportion of the building and the architectural details revealed a return to the classicism of Ramsay's design of 1951. It seemed that the proportions of the 1957 plan were not suitable for this building of increased height. The pilotis, bay windows and the layering effect were revisions – according to Basil Spence's suggestions – 'to humanize the façade of the north side of the Square'.

In the late 1960s, the situation gradually became favourable for the later stages of the Medical extension as, at a national level, moves were made for the expansion of medical education. The Todd Report (1968), by the Royal Commission on Medical Education, expected a considerable increase in the numbers of Medical graduates. The expansion load for Edinburgh University was estimated at around 200 new students per year. Responding to the climate nationally, and with the Pharmacology building nearly finished, further stages of extension – the Biochemistry building and the redevelopment of the Charles Street Lane – became priority provisions of the Faculty of Medicine.³⁴¹

In 1969, detailed requirements for the Biochemistry building were posted. The new

³⁴¹ 'North George Square and Charles Street Lane Development: a letter from Dr M. D. W. Low to the University on 22 November 1968', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

building, as the Faculty estimated, required a total accommodation capacity of 143,000 sq. ft. with an overall cost of £ 1,500,000. Apart from this construction, the Faculty expected to 'demolish the present obsolete animal accommodation building and [to replace it partially] with a new two-storey structure attached to the west gable of the Wilkie Labs'.³⁴² Construction of this Biochemistry building was expected to begin in 1971. However, during the interval, conservation emerged as a major public concern bearing upon urban development in Edinburgh, and opposition to the demolition of existing buildings on the north side of George Square mushroomed. In December 1970, the pressure from the conservation lobby led to the announcement by the City Council that the existing buildings of Nos. 11 to 14 George Square, the site for the Biochemistry building, were of architectural and historic interest and were categorized as level 'A'. This was a set-back for the University authorities because it threatened the failure of all the effort and work of planning by the University authorities and their architects over the previous two decades. The University authorities resolved to pursue consent to demolish these listed buildings, emboldened by the planning permission they had received in 1955. Statements concerning the national ethos for expansion in medical education, and the many years taken to evolve the medical extension of the University, were presented to the public in newspapers in the following year. Finally, in July 1972, the City Council was persuaded of the force of the University's case and planning consent was given once more to the University with a five-year validity.

During this period, the protracted planning process of the Medical School Extension continued. Although there were many discussions and negotiations, no considerable progress was achieved until 1972 when *The Medical School Extensions, feasibility study* was published. The Medical School Extension was then divided into four

³⁴² 'Faculty of Medicine, notes on building requirements consequent on an increase of student numbers, 14 May 1969', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

phases: Phases I and II were completed; Phase III would accommodate not only the Department of Biochemistry but also the new Medical Library and Animal House. A couple of years earlier, the new Medical Library was to be re-located at the site of the George Watson's Ladies College instead of the existing Medical School Building. But the fact that 'the site of the Ladies College would definitely not be available before 1976',³⁴³ led to the abandonment of the original idea, and the Faculty indicated 'a preference for a site to the west of that previously proposed'.³⁴⁴ Apart from the existing Animal House, the Faculty continued with the demolition of the old Wilkie Surgery Laboratories in the Charles Street Lane in order to widen this service road, although there were concerns about the cost of replacing these facilities. Phase IV was the future construction at the Ladies' College site.

In the plan of this feasibility study, there were several major differences from the previous plans:

(1) The garden between the west and east wings in the 1959 Plan was replaced by a courtyard, which was surrounded by buildings and overhead connecting bridges. By this, a continuous colonnade of pilotis could be formed along the exterior of the Medical extension (Figure 4.36). Although the effects seemed to be much less attractive than that of the proposed garden, the architect still considered that 'some gap in the George Square façade should be created to allow a visual and pedestrian link at ground level between other buildings and the George Square Gardens'.³⁴⁵ The proposed courtyard was placed on the axis of the George Square Garden, rather than that of the Reid School of Music as with the original location of the proposed garden.

³⁴³ 'Minutes of the meeting of the University Development Committee on 14 July 1971', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 3, miscellaneous papers, Special Collections, University of Edinburgh Library.

³⁴⁴ Ibid.

³⁴⁵ 'Medical School Extensions, Feasibility Study Phase III, 1973', *University Development Committee (Papers-Minutes-Meetings)*, DRT 98/005, Box 3, Special Collections, miscellaneous papers, University of Edinburgh Library.

This subtle change was made because Spence's 1959 plan for the radical reconfiguration of the George Square Garden could not be realised due to the intense pressure from the conservation groups. Thus, lining up the plans for the Medical School Extension, with the symmetry of the existing Garden, seemed to be a reasonable solution;

(2) Courtyards in the west and east wings were replaced by light wells. Because the Charles Street Lane would be reconfigured and widened, and William Kininmonth's extension to the Students' Union Building had already encroached upon the existing Lane, the footprint of the new Medical buildings had to decrease compared with that in the 1957 and 1962 plans by which it was intended to close-up the eastern part of the Lane. For the architects, the light wells seemed to be a more suitable choice because the reduced footprint would not have adequate space for well-proportioned courtyards. Also, the buildings would be taller than previously imagined (six stories above the George Square level, compared with three to four stories in the 1957 plan) in order to generate more accommodation from the decreased footprint.

Detailed design work was carried out after the Feasibility Study and the final plans were submitted to the City Council for approval in December 1975. A structural grid of 3.6 meters, based on measurements derived from typical medical laboratories, was applied throughout the plan. Despite 'some difficulty of fitting the structural grid of the Animal House and Biochemistry to the Library',³⁴⁶ a vertical stratification was adopted 'to avoid complications with programming, construction and financing'.³⁴⁷ According to this principle, the Medical Library occupied the ground and first floors plus part of the basement (Figure 4.37); the Animal House was allocated to the fifth floor, while the Department of Biochemistry was accommodated in the Second to Fourth Floors. In addition, a 150-seat Faculty Lecture Theatre was placed beside the

³⁴⁶ 'Medical School Extensions, Feasibility Study Phase III, 1973'.

³⁴⁷ Ibid.

Entrance Hall on its eastern side. Thus, the two light wells started from the second floor.

In the meantime, negotiations with the U.G.C. secured national grants for Phase III. Phase IV, however, seemed to be implausible for the reason that, as previously explained, in 1973 the U.G.C. refused to acquire the site and building of the Ladies College for the Medical School. The national tide for expansion of education of Medicine had meanwhile fluctuated and the previous ambitions of 1968 were overwhelmed by constraints five years later. With the Ladies College, a French-Renaissance styled building now being categorized as a listed building, and proposals to convert it into accommodation for the Department of Psychology in 1981, Phase IV was abandoned together with the original idea of a visual and pedestrian link between the Reid School of Music, McEwan Hall and George Square. In the Charles Street Lane, the Animal House was demolished whilst the accommodation in the Wilkie Surgery Laboratories was retained because of the prevailing financial and accommodation stringency. The construction of Phase III was not finished until 1981, largely due to the growing opposition to demolition of several existing buildings.

Although there was a fourteen-year gap between the construction of the Pharmacology Building and the Biochemistry Building, their designs by Walter Ramsay maintained remarkable consistency with each other. The George Square frontage of the Biochemistry Building, later named after the Principal, Sir Hugh Robson, followed the motif of the Pharmacology Building. The only difference was that the bay windows appeared only above the entrance and the connecting bridge with Phase I of the Medical School Extension – apparently, in order to line up the pilotis with the partition line of the College alongside (Figure 4.38). Under the pilotis, load-bearing beams protruded out of the rugged concrete wall. In addition, some

parterres were created under the first floor in the pilotis and it seems that the architects intended to bring nature and the man-made environment together.

It can be argued that the result of 'softening' and 'humanising' the original design of 1951 was not satisfactory. Though a compromise might seem to have been a necessity, the design of the Medical School Extension had evolved into a somewhat unimaginative amalgamation. In the design of the Hugh Robson Building, elegance of the upper floors was juxtaposed with the brutal effect of the exposed concrete pilotis and rugged concrete walls. With the exception of the structural grid, there appears to be no connection between the two parts of the facade. This mismatch can be seen more clearly if one observes the treatment of the top of the concrete columns of the Pharmacology Building where there is an uncertainty in the relationship between the two materials – natural stone and concrete (Figure 4.35). The protrusion of the bay windows out of the façade of the Hugh Robson Building is rather abrupt and its design does little to harmonize the polarized George Square frontage of the building. In addition, the parterres among the pilotis appear to be redundant, as the man-made effect is so dominating that the hint of natural elements is unable to act as a counterbalance.

By way of a summary of the above analysis of the architectural design of the Medical School Extension, the revision of the original rigid façade, to some extent, had the effect of 'softening' for the sake of 'softening'. The layering effect of the façade of the upper floors has little to do with what happens behind the wall. At the first sight, the concrete walls of the lower façade appear to express the typical brutalist concrete structure exposed without further decoration. As a matter of fact, the rugged concrete walls are just a layer of skin, chipped rib concrete panels applied to the structure behind, giving a fake impression to the observer's perception (figure 4.39). To have pilotis along the whole length of the building was a great idea; however, the effect of

the enclosure, conveyed through the rugged concrete walls with the spatial configuration of the Ground and First Floor levels, contradicts the openness of the level of the piloti so that the full potential of this modern architectural feature cannot be released. It is questionable whether inclusion of the pilotis in the façade was an integral part of the buildings or was more like a decoration.

Whilst the design of the Medical School Extension suffered from compromise, the planning of the north side of George Square lost its integration through the uncertainty of grant funding and the protracted struggle for site acquisition and planning permission. When Phase I was finished, and occupied solely by Physiology and Pathology, the envisaged provisions for Administration, on the west, and Surgery, on the east, as set by Ramsay, was abandoned. The problem of the elongated service connection through this site – being largely overcome by Ramsay's plan – became prominent again due to the character of the site. In the 1972 Feasibility Study Plan, the architects tried to solve the uneasy relationship between the Medical School Extension and the surrounding buildings. The solution to the problem of the service road, however, revealed an uneasy relation of the new Medical buildings with Phase I and the existing Medical School Building by the addition of the two-storey new Boiler House upon the existing one at the basement level. In addition, all the plans had been conceived on the assumption that all the existing buildings would be gone, especially the Animal House and the Wilkie Surgery Laboratory within the Charles Street Lane. Under the combined circumstances of fluctuation of governmental grants and intense criticism from conservation groups, it is regrettable that no alternative plans were explored for coping with the situation and enabling these two buildings to be retained. Indeed, in 1968, the Dean of the Faculty of Medicine had suggested the retention of these buildings for Surgical Science. The later plans did not pay due attention to this suggestion. Although the resulting plans increased accommodation on the north side of George Square, the situation behind the Medical

buildings had not been substantially improved.

3. Main Library

The Main Library, being such an important part of a university, received wide recognition in the general expansion of university building in Britain in the early part of the 20th century. In its 1922 report, the University Grants Committee stated: 'The character and efficiency of a university may be gauged by its treatment of its central organ – the library'.³⁴⁸ Concerning Edinburgh, before the new library building was finished in 1967, the Main Library within Old College was the object of continuous change and adaptation. At a special meeting of the Senatus of the University, in 1943, the Library Committee was remitted to consider the future development of the Central University Library. The Library Committee considered that a new and separate library building was necessary as it was 'fairly obvious that the extensions and attempts at modernization within [the Old College] and the acquisition of rooms outwith the Library could be only makeshift arrangements'.³⁴⁹ Despite the University's initial ideas about developing buildings around George Square, the Committee argued that a location in George Square would be too far away from the University quarters around Old College. As early as 1931, in his College Mile plan, Frank Mears had proposed locating the Library at the island site bounded by Potterrow, Lothian Street, Bristo Street and Marshall Street. Charles Holden acknowledged this idea in his plan for the University project in 1947.

In October 1949, a proposal of the librarians was submitted to the Library Committee. In this design (Figure 4.40), reading rooms were arranged around a 90-foot stack

³⁴⁸ Harrison Bryan, *University Libraries in Britain, a new look* (London & Hamden: Clive Bingley & Linnet Books, 1976), p. 26.

³⁴⁹ Jean R. Guild, 'The history of the Library 1939-1967' in *Edinburgh University Library, 1580-1980: A Collection of Historical Essays* ed. by Jean R. Guild and Alexander Law (Edinburgh: Edinburgh University Press, 1982), pp. 115-29 (p. 120).

tower with capacity for around one million books. It was a typical closed access layout in which readers had to consult the librarians for access to books or materials. However, these ideas were only tentative rather than being a final solution. Moreover, in the 1940s, the future expansion of the University of Edinburgh itself was unclear with the University authorities struggling to find land, funds and planning permission for their development schemes.

Consideration for a new Library was suspended until 1955 when the University authorities were submitting a new plan, for the redevelopment of George Square, to the City Council. The Library Committee pressed the case for new library buildings, urging that the allocation and design of the new Library should be made as soon as possible in order to submit the required application for funding of construction of the new building to the U.G.C. – relating to the quinquennium 1957-62.³⁵⁰ In Basil Spence's 1955 plan, the new Library building was placed on the south-west corner of George Square.

In discussing with the members of the University Development Committee, in 1954, Basil Spence argued one of the reasons for locating the Library in George Square was political. He argued that the difficult choice had to be made by the City Council between conservationists' suggestions and furthering the University's redevelopment schemes for George Square. The City Council was clearly confronted with a major challenge to determine which was more important. Locating the library – such an important university building – in George Square would demonstrate the cultural importance of the University's proposal. It would convince the Planning Committee of the City Council that such a proposal would also have the wider virtue of enhancing the cultural identity of the City. Concerning the needs of the University, Spence perceived that the Library, at this location, would provide readers with a

³⁵⁰ Ibid., p. 121.

fuller appreciation of the beautiful natural and urban landscape than could be achieved in Old College and other alternative sites. The natural surroundings in George Square would be a good supplement to the new architectural proposals. This interaction between the man-made environment and nature would, Spence considered, enhance the quality of the library as a place for both students and staff to read and study.

Spence's library was conceived as a solid box with a courtyard inside which would allow natural light to penetrate into the entrance foyer and the reading rooms above. The main volume would protrude from the roof with the form of a shallow dome resembling that of the McEwan Hall. The facade of the library was conceived as a configuration of alternating vertical bays of windows and panels of red sandstone, with horizontal partitions every two floors. Spence tried to create a sort of link with the surrounding Georgian tenements which had narrow frontages. From an urban planning point of view, the Library would balance the McEwan Hall,³⁵¹ on the north, in terms of volume, height and high quality of architectural design. In Spence's preliminary sketch, the viewpoint from the Meadows allows the Library building to rise from the foreground of trees. In terms of visual imagery, the solid form of the Library contrasts with the volcanic form of Arthur's Seat in Holyrood Park (Figure 4.24). Together with the multiple towers, the Library would create a new skyline for the South Side of the Old Town. This kind of appreciation of the dynamic relationship between architecture and nature, had its resonance in Casson and Condor's design for a new campus of the University of Birmingham in 1957 (Figure 4.41).

Extended discussions about Spence's choice of this location for the Library took

³⁵¹ 'Notes on talk with Mr. Basil Spence on 24 November 1954', *University Development Committee, Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

place at meetings of the University Development Committee in early 1957. Questions concerning Spence's proposal were led by Professors C. H. Waddington (Zoology) and Talbot Rice (Fine Art). Firstly, they emphasized the importance of locating the new Library near Old College. They thought that if the Library moved to George Square, Old College would become peripheral within the University precinct. Talbot Rice argued: 'It is needless to say that this opinion is in direct opposition to the views of our architect, but I do feel that we should remember that architects' views have always been governed by the fact that they want to build something new, rather than conserve something that already exists'.³⁵² He suggested the site at the north-east corner of George Square, or even using Old College, so that the library would have a closer relation with the Unions and Staff House. Secondly, they argued it would be relatively cheaper to convert the old building than constructing a new one. In addition, converting the old building would save accommodation in George Square for other purposes of the University. These suggestions were duly rejected by the University authorities and the decision was made in favour of Basil Spence's proposal.

In the minds of Spence and his supporters, the site in George Square could be made available much sooner than any other areas surrounding the University. In George Square, the properties at the south-west corner which the Library would replace consisted of only two university student hostels: Masson Hall and Cowan Hall. They considered that it would be easy to replace the two hostels at the Salisbury Green site designated for the new Halls of Residence. Constructing the Library in the island site in the Bristo Street area, however, would involve the much more complicated issue of decanting existing residents from their homes. Moreover, the possibility of expanding southward, to Buccleuch Place, was considered by some to be more

³⁵² 'A letter from David Talbot Rice to the Secretary to the University of Edinburgh on 16 January 1957', *University Development Committee, Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

desirable than the cramped situation of the island site near Old College.

Another contributory reason for the decision of placing the Library in George Square that should be mentioned here is the situation of the class libraries of the then scattered departments within the Faculty of Arts. Class libraries played a much more important role in the University of Edinburgh than most other universities in Britain. In 1955, there were 55 class libraries around the University. They not only served as a place for reading, but also were meeting places for societies within the University. This situation was a consequence of the particular history of the expansion of the University. Since the mid nineteenth century, pressure for departmental expansion within the University had led to an overspill of some faculties and departments from Old College. By way of illustration: the Faculty of Medicine settled in Teviot Place in the 1880s; the Faculty of Science established its new home at the King's Buildings in the 1920s; and the Faculty of Arts occupied miscellaneous places around the City. Such dispersal led to the situation whereby the Main Library, in Old College, could not function adequately to serve the faculties – as it had done in earlier times when most of them were still accommodated in the single quadrangle. In order to meet the requirements of departments for library access, there was a great increase in the number of specialized departmental and class libraries required for the dispersed units of the University. This was particularly the case after the Second World War. Between 1955 and 1957, 18 new class libraries around the University were established. These libraries varied greatly in size, from the major departmental libraries, in the Faculties of Science and Medicine, to much smaller ones in the Faculties of Arts and Social Science (which was established in 1962). The overall circumstance was that small libraries dominated.

The large number of smaller class libraries caused problems for administration since

these libraries often had no supervision by specialist librarians.³⁵³ Through the annual reports of the University Library, from the 1940s to the 1960s, we can detect that there was a chronic problem with lost books and a major part of the work of librarians in the University was to record and categorize the collections in the class libraries of the Faculty of Arts. These separate, unstaffed class libraries had already laid a heavy burden upon the University librarians. It was expensive to run this large body of uncoordinated libraries. As the Faculties of Medicine and Science had already initiated the action of reorganizing their class libraries, the University authorities perceived that 'if a great library were created in a site central to a much expanded university campus, it could again attract the libraries of the departments of the Faculty of Arts'.³⁵⁴ They look forward to a time when 'it should be possible in this new library to house these [uncontrolled class libraries] in a special block under professional library control as to lending and yet to provide amenities for browsing, discussion etc, in that block'.³⁵⁵ Since the proposed Library would be in proximity to the new Faculty of Arts buildings, a location in George Square would be desirable.

Having regard to these particular circumstances, the new Library of the University of Edinburgh would have to serve the dual purpose of being both an undergraduate library and a research library. An undergraduate library required larger reading space than mere book stacks, whilst a research library needed more space for the necessary collections of specialized books and other publications. The challenge here was that the Library had to be a compromise between these two types of library. At the same time, the University authorities resolved to meet the competing aims of expanding its collections to around 2 million books and of enlarging the provision of its students' reading rooms, study carrels and seminar rooms for the increasing body of

³⁵³ Margaret D. Bell, 'Faculty and Class Libraries', in *Edinburgh University Library* (see Guild above), pp. 163-81 (p. 166).

³⁵⁴ 'Proposal regarding a new Edinburgh University Library, March 1955', *Major Projects: Main Library, General Correspondence*, DRT 97/016, Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

³⁵⁵ *Ibid.*

undergraduate students. Thus, flexibility and efficiency were regarded by the Library Committee as the highest priority in design.

These factors and considerations drove the evolution from the 1949 proposal to Spence's 1955 plan. The Library Committee recognized that in the 1949 proposal, the differences between the stack tower and the surrounding reading rooms, in terms of floor heights, imposed structural inflexibility that prevented future change. In addition, the closed-access layout had disadvantages in two particular aspects: (1) the closed-access system fixed the ratio of stack space to reading area and did not allow freedom for future functional change; (2) the closed-access system limited the freedom of readers to choose the books they wanted and precluded browsing through the collections. In responding, the University authorities abandoned the stack tower concept and triple-stack floor-structure. In Spence's 1955 plan, a solid building with a 15 feet standard floor-height was proposed with an open-access layout. Under this system, the uses of spaces could be easily changed. In the 1970s, Michael Brawne, the influential British architect and architectural author, made an analysis of the importance of the open-access concept to the planning of a university library. He perceived that the key factors in this kind of library were communication of information and unification of various conflicting requirements. The environment should contribute to the concentration of study and reading and at the same time should allow readers to change their books frequently without too much disturbance to others. He argued: 'This conflict is very much easier to resolve when books are close to readers and when the book stacks in fact provide a good deal of the screening of one user or group of users from another. The spatial organization which results from an open access appears to be particularly appropriate to the way in which a research library can be used most effectively'.³⁵⁶

³⁵⁶ Michael Brawne, *Libraries: Architecture and Equipment* (London: Pall Mall Press, 1970), p. 78.

Although progress with the Main Library was regarded as urgent by the University authorities, other competing demands meant that it was not on the list of Major Building Projects designated between 1956 and 1961. The U.G.C. only approved a very limited number of grants each year. So priority was given to other provisions which the University authorities regarded as more urgent, such as Engineering Buildings, a Veterinary Field Station and Arts buildings. Another reason for this postponement was the problem of rehousing Masson Hall. It was proposed that Cowan Hall would occupy the Salisbury Green, adjacent to the University's new halls of residence. A suitable site for Masson Hall, however, could not be found until 1961 when some properties in Kilgraston Road were expected to be acquired for this student accommodation. Masson Hall was finally relocated to South Lauder Road.

Despite these delays, the design of the Library progressed during this period. Some changes were made to the 1955 plan in 1959 (Figure 4.42). Horizontality became dominant in the facade treatment and the protruding columns in the 1955 plan disappeared. The contrast of void and solidity was favoured. Full glazing gave the central bay, the entrance foyer and reading spaces ultimate transparency whilst the narrow windows, on the side bays, seemed to be carved out of stone walls. Spence designed an atrium between the ground floor and the first floor so that there could be a visual link between the Meadows and the George Square garden. An outdoor staircase was proposed so that the readers could walk directly from the entrance atrium down to the Meadows. The overall configuration gave the revised building a sleeker outlook than that of the 1955 plan. Though some elements of classicism remained, such as the treatment of windows in the side bays, the 1959 plan indicated the stronger influence of the International Style. Although the proposal to create a courtyard beside the entrance foyer remained in the 1959 model (Figure 4.31), it was removed from the plan by the time of publication of the appeal brochure which the University authorities used to seek private donations in 1960 (Figure 4.43). This

change was probably caused by the introduction of the new concept of the 'Modular',³⁵⁷ design by Dr. Lauriston W. Sharp, the Librarian of the University of Edinburgh between 1939 and 1959. He had paid a visit to the United States several years earlier and was impressed by this concept. The prominent characteristics of the Modular system were simpler shape and configuration of the building and higher efficiency.

From 1961, the University authorities started to put the Library into its schedule of real construction. They perceived that 'provision of the Library must be made for use on completion by 4,000 undergraduates, about 830 postgraduate students, about 500 university staff'.³⁵⁸ They were not clear, however, as to how to apply the modular system to this building with such a huge provision of accommodation. Sharp's successor, E. R. S. Fifoot, observed: 'It has become quite clear there are not any modern university library buildings in Britain of comparable size to serve as a guide in solving the problems involved [in the University of Edinburgh Library]'.³⁵⁹ In the same year, the Library Committee decided that before the detailed brief could be drawn, it was necessary to pay another visit to some of the newly-built libraries in the United States so as to collect first-hand information to assist the implementation of this new concept. The Committee considered it important that the University of Edinburgh should benefit from the best available experience.

³⁵⁷ The Modular concept was named by Angus Snead Macdonald in the United States in the 1930s. This idea replaced the load-bearing walls with carefully placed columns. The distance of columns and their heights were determined by the sizes of stacks and reading spaces. The space between four columns became the basic unit of the whole plan of the library. The modular library can easily shift its spatial arrangement and expand. Due to its flexibility and efficiency, the modular system was widely accepted and applied in the library design after the Second World War.

³⁵⁸ 'Edinburgh University Library Building: Preliminary consideration, 28 February 1961', *Major Projects: Main Library, general correspondence*, DRT 97/016 Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

³⁵⁹ 'A letter from the librarian to the University for applying for a trip to U.S.A in 1961', *Major Projects: Main Library, general correspondence*, DRT 97/016 Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

In the autumn of 1961, E. R. S. Fifoot went to the United States and visited several modern libraries. These included the Olin Library at Cornell University, the Undergraduate Library at South Carolina University, Brandeis University Library and Louisiana University Library. During his visit, Fifoot observed:

All these buildings are rectangular in shape, with as few stories as possible; none has internal load-bearing walls, and all except Brandeis are modular... Perhaps the most important lesson was the vital importance of flexibility throughout the building. Buildings designed on modular principles have been capable of adaptation to changing conditions.³⁶⁰

Among these libraries, the Undergraduate Library at the University of South Carolina provided the most important lesson for the University of Edinburgh.³⁶¹ Opened in 1959, this building was designed by Edward Durrell Stone (1902-1978), the architect of the United States Embassy in New Delhi, India (1958) and the Kennedy Center (1971). This library served undergraduates in their coursework and reading. The outlook of the building followed Stone's personal idiosyncrasies – essentially, a kind of modern decorated style. The entrance foyer was two stories high and monumental in scale. There were few partitions in the floors. The lights in the ceiling were placed in even grids. Fifoot was probably impressed by the whole setting of the interior design which gave the readers a welcoming open view. They could understand the whole layout when entering the building (Figure 4.44).

In 1962, the authorities at the University of Edinburgh began detailed negotiations with the U.G.C. to establish the schedule of accommodation for their Library. The

³⁶⁰ 'Librarian's visit to the U.S.A, 12 September 1961 – 4 October 1961', *Major Projects: Main Library, general correspondence*, DRT 97/016 Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

³⁶¹ E. R. S. Fifoot, 'From Old College to George Square', in *Edinburgh University Library* (see Guild above), pp. 130-39 (p. 131).

initial applications for the inclusion of communal spaces in the library, such as lounge and seminar rooms, and the installation of air-conditioning for the whole building were all rejected by the U.G.C.. They argued: 'There might be difficulty in accepting the need for provision of seminar rooms and the 'Readers' lounge for the service of refreshments to students since we should expect this to be provided elsewhere, e.g. in the Union'.³⁶² The U.G.C. expected this function to be accommodated in the new Union building to be located at the island site. According to the U.G.C.'s criteria, it would be an expensive expenditure to provide full air-conditioning for such a large building as the Library. There was no precedent of this kind in the UK. They stated that they would only pay for the installation of the air-conditioning for special functions, such as the collections of rare books and manuscripts. Finally, the University authorities persuaded the U.G.C. to fund some seminar rooms within the plan of the Library. There would also be a small coffee room in the building. But the architects and librarians were left with the problem of incorporating the cost of ventilation within the agreed budget. In 1962, the U. G. C. estimated the total gross accommodation for the building to be 276,203 square feet with an expenditure of £ 1,326,000.

The final plan of the Library was drawn in 1963 by J. Hardie Glover and Andrew Merrylees of Sir Basil Spence, Glover and Ferguson Architects. During this period, Basil Spence spent most of his time working in London, acting primarily in a supervisory role, with the detailed design work being undertaken by his colleagues in his Edinburgh office. The proposed library was an eight-storey building, having a rectangular floor plan, 250 feet long by 150 feet wide. The structure was based on the module of 27 feet (length) × 27 feet (width) × 9 feet (height). This modular shape was dictated both by the size of the stacks and by the planning control of the

³⁶² 'The letter from the U.G.C. to the University on 23 November 1962', *Major projects: Main Library – General correspondence*, DRT 97/016 Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

City Council. The Planning Committee of the City Council exercised restrictions on the heights of the buildings around George Square. They required that new buildings should be kept in similar height with the surrounding old tenements. This was to ensure that the new constructions would not disturb the architectural harmony of the Square. Nine feet was considered to be the minimum acceptable ceiling height for stacks and reading areas. The maximum of visual harmonisation with extant buildings has to be achieved in the Square.

In order to incorporate the undergraduate library and research library into one building, the architects proposed to allocate them to different levels, with first and second floors for the undergraduate library and third, fourth and fifth floors for the research library. The ground floor, accessed from George Square, consisted of an entrance foyer, services and library offices. Within the entrance foyer, a main staircase led readers to the undergraduate library (Figure 4.45). This staircase stopped at the second floor and then three staircase cores connected the undergraduate library with the research library at the upper levels. Both libraries had extensive open spaces for book stacks and reading areas. No further partitions were added except the walls of the three circulation cores (Figure 4.46). A Minerva fire-detection system was proposed to allow this configuration to function safely – which might not be possible under other systems. The fifth and top floors were designated for Special Collections, storage spaces for manuscripts and library offices.

The visual expression for this building was considerably changed compared with the 1959 design. The last hint of verticality in the 1959 plan – the transparent central bay for the entrance foyer and the upper reading rooms – was erased. The application of cantilevered balconies, a long beam above the entrance and uninterrupted horizontal windows, with aluminum frames, expressed the absolute

dominance of horizontality (Figure 4.47). Red sandstone was replaced by other materials. The façade of the upper floors was clad with white Portland Stone whilst black marble and yellow York stone were applied to the lower-level frontages. The contrast between light and dark coloured stones, and between stone and glass, created a dynamic effect. Two reasons accounted for the changes. Firstly, in the spirit of Sir Basil Spence and his young Edinburgh colleagues, uncompromising and bold forms were required;³⁶³ Secondly, the dominance of horizontality in the façade was the expression of the simple and straight-forward open-access layout of the building.

Construction of the Library started in 1965. The building was duly opened during the summer term of 1967. The mechanical ventilation system was designed to provide five air-changes per hour and to maintain an internal temperature at 68°F (20 °C) with a relative humidity in the range 45% to 55%. The result, however, was not satisfactory and there were soon complaints about the quality of the air in the Library. The ventilation was so poor that it became unbearably hot in the building during its first summer term. In the 1970s, the University authorities lobbied the U.G.C. to allocate additional grants for the installation of a full air-conditioning system. This was a suggestion that the U.G.C. could not refuse since it was inconceivable this expensive library be left in an unworkable state. In summary, we here should note that the Library had actually expanded to a total gross area of 298,081 square feet with a cost of £2,101,555 including furniture and installations.

In terms of its architectural design, the Library was regarded by many professional designers and critics as a success. It received the RIBA (Royal Institute of British Architects) Award in 1968 and the Civic Trust Award in 1969. In commendation of

³⁶³ Brian Edwards, *Basil Spence, 1907-1975* (London: The Rutland Press, 1995), p. 67.

the Library to the RIBA Award, in 1970, the Assessor, Tom Mellor made the following comments:

Sited at the south-west corner of George Square, it forms a most effective stop and corner stone to the considerable group of new buildings further east. This aspect of the building is particularly clear from across the Meadows to the south, when the strong horizontal lines of the building seen above the trees are most effective.³⁶⁴

In his book, *Basil Spence, 1907-1976* (1995), Brian Edwards remarks that the exciting thing about the Library is the clever manipulation of light and shadow in the architectural design and in aspects of the texture of materials and volumes of the building. Most of the criticism of the architectural design concentrated on the cantilevered balconies. Though the stone-clad balconies make a significant contribution to the appearance of the Library, readers were not allowed to access to them. Therefore, to have balconies all around the building can hardly be regarded as being functionally justified. Observation of the building from specific angles, from the Meadows in particular, lead to the appreciation that the Main Library does indeed achieve a grand monumental effect while being elegant and sympathetic to its surrounding environment. Considering its great mass (one of the largest university libraries in Europe) the volume of the building is so great that it inevitably had a dominating impact at the George Square façade – this point being a reservation in Tom Mellor's commendation (Figure 4.48). However, the strong horizontals of the fenestration made more emphatic by the shadows cast by the balconies effectively counteract the effect of massiveness. The building reads as a set of horizontals separated by voids.

³⁶⁴ *Major projects, Main Library, General Correspondence*, DRT 97/016 Box 1, miscellaneous papers, Special Collections, University of Edinburgh Library.

Whilst the external appearance of the Library owes much to the ideas of Glover and Merrylees – who departed from some of Spence’s general concepts – the interior of the building can be said to be closer to Spence’s own work. The interior of the Library shows the inspiration of Scandinavian architecture of the period with a high quality of craftsmanship and use of different materials, especially in joinery work which creates a humanistic atmosphere for the users. In 1954, when the proposal for the Library was still in its infancy, Basil Spence suggested that the University authorities should become familiar with the architecture of Aarhus University in Denmark. He said: ‘... to my mind, there is not a better university anywhere, especially with regard to internal appointments such as furnishings etc., and it should help us greatly with our work in connection with Edinburgh’.³⁶⁵ Responding to Spence’s recommendation, the Deputy Secretary to the University paid a visit to Aarhus in autumn 1954.

The interior of the buildings of Aarhus University expresses a combination of the so-called ‘Nordic Functionalism’ with the Danish traditions, especially in terms of form and materials. Materials are modeled, according to their physical characteristics, as determined by the creativity of the architects, while, at the same time, the visual expression of materials is well coordinated with their functions (Figure 4.49 & 4.50). Materials are disposed in various shapes and colours, and light is effectively manipulated to create a sequence of harmonious and vibrant spaces.

Under the severe cost restraints imposed by the U.G.C., Spence and his colleagues worked hard to uphold the virtues conveyed by the contemporary Scandinavian design. For example, in the two-storey entrance foyer, load bearing columns 3’ × 1’6” of exposed polished concrete with an uninterrupted geometric ceiling of

³⁶⁵ John Macpherson, ‘University Development: Mr. Basil Spence, 1954’, *Estates and Buildings: Development*, DRT 98/005 Box 5, miscellaneous papers, Special Collections, University of Edinburgh Library.

aluminum sound-absorbing panels, impart to this space a strikingly monumental appearance. These 'hard' materials form a fine contrast with the 'soft' dark-coloured wood which is applied to the handrails, window blinds and furniture (Figure 4.51). However, this main concourse gave an unwelcoming impression to some, as Heather M. Edwards says in *University Library Building Planning* (1990). The monumental effect which the architects wished to convey is so dominant that the application of such details as nicely-shaped woodwork seems insignificant. The dark colour hues of the interior of the Library, combined with the monotonous rows of artificial lights that are applied throughout the building, create a sombre atmosphere. The unsatisfactory functioning of the air-conditioning system, in terms of humidity and temperature, adds to the feeling of claustrophobia. Although the full glazing of the entrance façade to George Square imparts a feeling of absolute transparency, the densely placed wood panels on the windows counter this effect. In addition, in the entrance foyer of the Library, the readers' view is blocked by the ordering, cataloguing and reference desks and the offices which occupy a major part of the ground floor. Considering the cost restraints, the 60% of usable space, within the total gross area of the building, is a considerable achievement within the very harsh financial rules stipulated by the U.G.C.. Under this circumstance, it is regrettable that some of the good ideas in the 1959 plan, especially the visual link between the George Square garden and the Meadows, were not able to survive in the final plan.

In terms of its function, the Library of the University of Edinburgh could be rated as being a very effective building. Its advantages may be summarized as follows:

The Library's modular system is highly efficient. In *Planning and Design of Library Building* (1973), Godfrey Thompson analyzed the adaptability of a structure by the gauge of the percentage of total floor area upon which reading spaces and stacks could be accommodated and changed without major alteration. He used the modular

libraries of the Universities of Edinburgh, Essex, Lancaster and Warwick as examples for of his case studies. The Library of the University of Edinburgh was found to have a considerably high index – 75% – compared with 60% in Essex, 69% in Lancaster and 66% in Warwick. The result of this mathematical analysis had already been demonstrated in 1968 as being valid. The original aim of the Library was to provide around 1,900 reading places, but, in 1968, 2,500 seats (31% more than the original goal) were arranged so as to meet the need of the fast-expanding student community.³⁶⁶ The Librarian, Fifoot praised the design of the building: ‘The additional seats have been found without the alteration of a single wall or duct – a striking illustration of the necessity for flexibility in library design’.³⁶⁷ During the four decades after its completion, Edinburgh University Library has experienced various changes of layout without major difficulty within the existing structure – a remarkable testimony to the adaptability of the architect’s design.

The good functioning of the Library has been demonstrated by the popularity of the building. In the 1970s, the percentage of full-time students, who used the Library, reached 41%, being much higher than the average 25% and 33% achieved in the civic universities and the newly-established universities respectively. The Library at Edinburgh is also frequently used by people from outside the University of Edinburgh: ‘24% of its regular borrowers in 1975 were not members of the University’.³⁶⁸ Concerning the structure, the reduction of the load-bearing walls and permanent partitions has been demonstrated to be cost-effective. Savings from this part of the expenditure are an important contribution to the achievement of the good quality of the furnishing throughout the whole building.

The Library’s good functioning was not achieved without some sacrifice. To obtain

³⁶⁶ E. R. S. Fifoot, ‘Edinburgh University Library’s new building’, *SLA News*, 68 (1986), 11-14 (p. 12).

³⁶⁷ *Ibid.*

³⁶⁸ Bryan, p. 125.

the integrity of the open plan, to incorporate two libraries of different character and to fulfill their aspiration of creating a monumental entrance foyer, the architects needed to design separate stairs; namely, the central staircase, in the main concourse, and stair cores to the upper floor. The architects' anticipation of accommodating the majority of undergraduate students at the lower levels has generally been proved successful. Although the stair cores to the upper floors seemed to be small, compared with the vast floor area, they seemed to be sufficient given that the upper floors were mainly research collections.

Notwithstanding the virtues just cited, the situation changed dramatically, even soon after the opening of the building. Immediately, in order to meet the needs of the increasing number of students, more of the upper floor area has been occupied by undergraduate students and more of the stacks at the research library have been changed into reading spaces and computing zones. The boundary between the two libraries had not been fixed, as the architects anticipated. Under the changing circumstances, the staircases in the building have proved to be problematic. These functional changes increase the problems of vertical circulation of readers which create noise within the general environment – especially at the second floor. After ascending the grand central staircase of the entrance foyer to the second floor, readers then struggle to find the location of the smaller stairs to the upper floors. Although two lifts were installed in the entrance foyer, they were frequently over-burdened and have been upgraded in recent years with more high-speed lifts in an attempt to solve this problem.

The extensive open-plan also presents a problem. The ceiling height of 9 feet, which was the result of the height restriction imposed by the City Planning Committee, has proved to be too low for such a large open space of 250 feet long and 150 feet wide. In the first instance, natural light and air are not able to penetrate into the inner parts

of the building. This was an important reason for the failure of the mechanical ventilation in the summer term of 1967. The interior environment of the building is not entirely satisfactory – even now following the full installation of air conditioning. In addition, this ceiling height, to some extent, reduces the flexibility of the building. Between the top of the stacks and the ceiling there is only the distance of several centimetres. Given this situation, the stacks cannot be moved freely since this would result in an uneven distribution of light.³⁶⁹ In such a massive homogenous space, it is difficult for readers to have a very clear sense of orientation with respect to the collections relating to different subjects since there are no clear boundaries between them. Furthermore, the flexibility of the spatial arrangement to some extent acts against individual comfort. Concerning personal study, although some study carrels have been provided, disturbance and distraction, especially from the noise of passing readers, is a considerable problem (Figure 4.52).

Although the building has experienced a number of problems, as the preceding remarks have illustrated, the Main Library of the University of Edinburgh is indeed a distinguished building and stands prominent in the group of university buildings in George Square. We can appreciate its function in particular. It was a considerable achievement for the University of Edinburgh to ensure the completion of the largest university library within the U.K. and, moreover, one supplied with full air-conditioning. This is a degree of luxury that other British universities can only envy. These remarks have particular force since, after 1970, the U.G.C. started to restrict the design standards of library buildings. For example, the new libraries in Nottingham University (1972) and Loughborough University (1980), were only about one-third the size of their counterpart in Edinburgh (Nottingham University Library: 108,000 square feet and Loughborough University Library: 99,700 square feet). Edinburgh University Library was a landmark creation and a standard bearer in

³⁶⁹ H. M. Edwards, *University Library Building Planning* (Metuchen, N.J.; London: Scarecrow, 1990), p. 28.

the history of British university library planning.

4. George Square redeveloped

The previous sections have explored the individual projects within the redevelopment scheme of George Square. Particular attention was paid to the evolution of plans and architectural design with relation to the changes of academic requirements, financial circumstances and ideas of architecture. For example, the Arts Faculty buildings had the problem of departmental identity. The Medical School Extension struggled with its continuity under the standstill of national medical expansion. In this section, reflections will be made to view the redevelopment scheme as a whole, based on detailed exploration of previous sections.

Integration of Humanities and Science

To combine Humanities and Science in George Square was a philanthropic idea, as critics in the 1950s and 1960s argued. The two towers in George Square are a sort of landmark which visually facilitates a 'dialogue' between the 'Two Cultures'. In particular, this ensured that science students could enjoy the amenities of the University facilities in the central area and of urban life. However, this could not go beyond a sort of symbolic gesture because at the University of Edinburgh, 'increasing specialization was a marked feature of the post-war years'.³⁷⁰ From what has been discussed, concerning the Arts and Social Sciences precinct, it appears that the academic development seemed not to keep pace with the evolving changes in the composition of the physical environment. In fact, the departments of Biological Sciences, which were accommodated in the Appleton Tower, were academically much closer to the Medical School than to the Arts and Social Sciences departments. The First Year Science block was also called a 'pre-medical' unit. In addition, in the

³⁷⁰ R. D. Anderson, Michael Lynch and N. T. Phillipson, *The University of Edinburgh: an illustrated history* (Edinburgh: Edinburgh University Press, 2004), p. 192.

C. D.A. Plan, an attempt at connecting the First Year Science tutorial block to the Medical School Extension was made.

The achievement of the symbolic gesture of bridging the 'Two Cultures' cannot disguise underlying problems with the development strategy of the University authorities. Siting the four largest faculties around George Square provoked intense conflicts relating to the planning history of this area. Given the tensions between the University's grand plans, and the prolonged planning process and fluctuating financial resources, the departments of the Faculties of Social Sciences and Science fought each other for accommodation. Accordingly, the University's policies and priority for major building projects were frequently changed. The consequent need to represent two faculties in George Square impacted on their individual integration. Social Sciences departments had to be dispersed in the city centre and first year Science students had to be separated from their senior fellows at King's Buildings (Figure 4.53). Another dilemma of the University development was that its Development Plan was consistently out-of-date within the fast-changing university community. The so-called 'integration of the university community' was partially achieved and some of the urgent needs for accommodation and re-organising the separated Arts Faculty were met. However, the sacrifices cannot be ignored. This problem led to a more compact spreading of departments within the City than had prevailed in the 1940s. It was difficult to assure the proper working of such a large number of dispersed properties and academic units.

Problems associated with the multi-architect project

Notwithstanding the planning controversies relating to George Square, the analysis of historical data in this Chapter shows that the new buildings of the reconstructed Square possess much worth and are worthy of commendation. For example, the refinement of design of the Main Library and the functioning of the Appleton Tower

are satisfactory. Of the Arts and Social Sciences building, Miles Glendinning remarks: 'Inheriting an earlier 1955 proposal for a tower block by Basil Spence, Matthew broke open the rigid form of the Square with an elegant 15-storey Arts Tower'.³⁷¹ The link between the George Square Garden and Buccleuch Place was certainly strengthened by the gaps between the buildings on the south side.

However, more important for George Square is whether the different buildings work together as a whole. A campus, being designed by different architects, has both advantages and disadvantages. The advantages are in the diversity which a catholic appreciation of architecture finds into the overall setting, while the disadvantages are that the appreciation of variety in architecture, if not well manipulated, leads to a state of disharmony. In George Square, it can be argued that the advantages were overwhelmed by their opposites. The frontage of George Square shows considerable incoherence. There are other problems and a lack of resolution. For example, there is a lack of control over the design of the colonnade – the pilotis. The difference, in terms of scale and design, between the pilotis of the Medical buildings and the pilaster-like colonnade of William Robertson Building and Adam Ferguson Building is so great that the Medical buildings can scarcely be considered connected to the tutorial blocks on the east side of the Square – as proposed in the C.D.A. Plan (Figure 4.54). Though the Main Library retains the uniform horizontality of the rest of the buildings on the south side of the Square, the application of Portland Stone and black marble, and the nature of its facade treatment are, some extent, at variance with the adjacent Lecture Theatre and the Adam Ferguson Building.

These incoherences reveal problems within the planning and development of the University of Edinburgh during the post-war period. During the planning process of

³⁷¹ Miles Glendinning, 'Patrick Geddes and Robert Matthew' in *The City after Patrick Geddes: The Missing Link of Neotechnic Modernity*, ed. by Volker Welter and James Lawson (Oxford: P. Lang, 2000), pp. 249-62 (p. 259).

George Square, the redevelopment sub committees of the University Development Committee held many independent meetings concerning the design of specific buildings in which they were in charged. The collective problems of the buildings were then discussed at the meetings of the University Development Committee which were occasionally attended by the Planning Consultant to the University. This hierarchy in the planning machine is not unreasonable. However, there were undoubtedly instances of lack of communication. For example, in 1964 Percy Johnson-Marshall wrote to the Secretary of the University, arguing that: 'The University should ask the architects to provide a 5'0" minimum width of uninterrupted covered pavement [under buildings]. The drawings of Block 'C' and 'D' do not provide this'.³⁷² This, Johnson-Marshall considered, was an important element in the pedestrianism of the C.D.A. Plan. However, in John Richards' reply, he explained that it was too late to meet this requirement because the buildings were already under construction. It was clearly unreasonable that permission to commence construction was granted before the Planning Consultant was fully informed of what had happened, or changed, to the buildings. This single case reveals one problem: there was lacking a mechanism which could draw the different architects together to exchange their thoughts with each other. Research undertaken for the earlier parts of this Chapter suggests there is some evidence to show that, in the meetings of the University Development Committee, there were very few official opportunities for 'cross-building' discussions with the architects relating to the specific buildings that were being design.

The 'quadrangle'

Despite many difficulties in the planning process, the University authorities finally managed to recreate an enclosed space around George Square garden. There then

³⁷² 'Observations of the Second Report for the Faculties of Arts and Social Sciences buildings: A letter from Percy Johnson-Marshall to the Secretary of the University on 20 November 1964', *Major projects: Arts and Social Sciences Faculties*, DRT 97/023, Box 2, miscellaneous papers, Special Collections, University of Edinburgh Library.

emerges the question: did George Square transform itself into a fine quadrangle as the architects claimed? Etymologically, 'Quadrangle' is a four-side enclosure bounded by buildings. Later, this term was frequently applied to monastery buildings and colleges where it became synonymous with 'a large rectangular inner-court around which buildings are erected, such as in Oxford colleges, where it is called quad, and in Cambridge, called court'.³⁷³ It gained further currency and association with reflection and study. In the eighteenth century, Edinburgh reinterpreted the collegiate tradition within a single building – Old College, with its court and surrounding teaching accommodation, a unified entity. After the Second World War, the University authorities in Edinburgh showed once more a close adherence to this academic legacy which Basil Spence sketched out in his 1955 proposal. Since the redeveloped George Square would not have the residential function of the collegiate quadrangle, there was an underlying expectation on the part of the University authorities, and their architects, that the visual quality of the new constructions, and artistic landscaping in relation with George Square garden, would achieve the sort of sentiment and sense of belonging which were associated with the collegiate quadrangle.

For the redevelopment of the Square, coordination between the Medical School Extensions and the reconstruction of the south and east sides proved to be a great problem. The main concern, central to the planning permissions in the 1950s, was with the architectural design in terms of scale, materials and details. The dilemmas associated with this fundamental point have been explored in previous sections. Another aspect worthy of mention here, was the problem of the coordination of the planning with that of other buildings closely related to the Square. To take the McEwan Hall and Reid School of Music Building for example; Ramsay had proposed an overall symmetrical plan for the Medical School Extensions. The

³⁷³ James Stevens Curl, *A Dictionary of Architecture* (Oxford: Oxford University Press, 1999), p. 527.

formality of the existing garden was, indeed, a difficulty for Spence, since it contrasted with the asymmetrical planning and design of new buildings on the other two sides of the Square. The problem was that the proposed axis of the Plan of the Medical School Extensions would end at the large lecture theatre, rather than the Main Library – which was regarded as the focus of the Square by Spence. His reaction to this situation is clearly shown in his 1959 proposal in which the garden was re-landscaped in such a way as to act as a hinge joining these two axes – one from the Medical School Extension and the other from the entrance of the Library. However, the City Council did not approve this reconfiguration under the agreed assumption that the existing garden was the most important component for George Square. The contrast between the two sides remained an unsolved problem. Moreover, there were further problems associated with the plan of the Arts and Social Sciences building and the podium. The podium had its advantages, such as the efficient use of accommodation. However, it served to emphasise the individuality of independent buildings, so that spaces on the podium, around the buildings, became secondary. Although the podium was designed to enhance communication among students, it was in fact treated more as the means of commuting between different independent buildings, since the major communal facilities were placed on the sub-podium level. Nevertheless, the 1964 plan of the Faculties of Arts and Social Sciences expressed a clear hierarchy which isolated itself from other teaching accommodation and the Library. This effect would have been much stronger if the entire length of the William Robertson Building (Block C) and Adam Ferguson Building (Block D) had been completed.

Also worthy of notice is human circulation within George Square – the demarcation of the pedestrian zone, at the south side and half of the east side of the Square, from the vehicle-accessible zone at other sides. This was the result of the requirement for vehicle access to some departments in the western and northern parts of the Square,

since alternative access was not available from the Middle Meadow Walk – a pedestrian route. It can be argued that the price paid overwhelmed the convenience that this road-planning decision had achieved. This demarcation created two contrasting kinds of space within the Square: a campus of tranquillity and idleness versus a kind of urban blocks of Redbricks. This contrast did not bring diversity, but alienation between spaces around the Square. The compromise decision in the 1955' planning permission and the difference in the interests of architects had generated an incongruous architectural setting. It is regrettable that road planning and associated landscaping did not contribute to some kind of unification; rather it aggravated the situation.

By way of summary of the above analysis, confusion within the overall plan of the Square and resulting alienation of spaces failed to achieve the quadrangle that the University authorities and its architects imagined. The redeveloped George Square lacked an integrated spatial environment able to alleviate the sense of alienation which had been already generated under the increasing specialisation of disciplines and the 'lack of intimacy within the [rapidly expanding] academic community',³⁷⁴ under the pressure of the mass education of the post-war period. As previously argued, the bridging of the gap between Arts and Science by placing the First-Year Science Teaching tower in the Square was no more than a symbolic gesture. Furthermore, it is open to question whether the poor spatial quality, combined with the vivid memory of the George Square controversy, has raised positive sentiments within the university community. In other words, was George Square qualified as being the true 'heart' of the University? The replacement of old houses with new buildings casts its long shadow over the university community and alumni to this day. Chapter Three has explained that conservation pressure was partly originated from within the university community. One example was that 'the 1960 appeal [launched

³⁷⁴ R. D. Anderson, Michael Lynch and N. T. Phillipson, p. 210.

by the University authorities] evoked the response from many alumni that they would not contribute because of the University's vandalism in the matter of George Square'.³⁷⁵ This can also be detected in publications that celebrate the history of Edinburgh University with regard to previous centuries. These reveal an appreciation of buildings associated with the Enlightenment and the nineteenth century. Less enthusiasm is shown for the period of post-war university expansion. In *The University of Edinburgh: an illustrated history* (2005), explorations of the history of the University before the Second World War were closely associated with the development of built environment. However, the post-war built fabric was briefly mentioned, with little sympathy. The principal exception is the Main Library which is often remarked upon for the elegance of its proportions. Few other of the 1960s buildings, associated with George Square, have achieved iconic status as symbols of the University. Even worse was that in 2004, there was a Channel 4 programme inviting votes from the public for the ugliest buildings around the UK, and the Appleton Tower was nominated by the Edinburgh Student Newspaper. The attractiveness of the Square still remains with the garden,³⁷⁶ not surrounding buildings – ironically the same situation as Abercrombie, Spence and Matthew acclaimed a half century ago. These instances shows that the redeveloped George Square failed to strengthen the sense of belonging among the university community. It is an irony that though Old College was long deprived of its vitality with its court being occupied by cars and rooms being largely taken by administration, it maintains the role of the spiritual centre of the University – as seen in the University's prospectuses and publications and various tourist introductions to the University.

The above reflections summarise the extent to which the construction of George

³⁷⁵ Eleanor Robertson, 'The Story of the Society: the Georgian Group of Edinburgh and the Scottish Georgian Society', *Magazine* 6 (Edinburgh: Architectural Heritage Society of Scotland, winter 1997), 14-16 (p. 14).

³⁷⁶ The George Square garden is a focus of local and international activities. In the semester time, it is a popular place of students' leisure after the class while, during the summer Festival, it becomes an important venue for festival shows.

Square campus had achieved the ambitions of the University authorities and the associated problems and dilemmas. The following section will examine the whole process of planning of the central area of the University of Edinburgh and explore the overall built fabric of the University – the proposed ‘total environment’.

5. Reflections: Edinburgh University’s ‘total environment’

The evolution of the planning of the University centre in Edinburgh

The history of the planning of the University centre of Edinburgh is probably one of the most protracted and complicated processes in postwar university expansion – in terms of changes in planning concepts. Four steps in this planning have already been explored in Chapter Three, namely: Frank Mears’ College Mile (1931), Charles Holden’s plan (1946), Basil Spence’s plan (1955) and Percy Johnson-Marshall’s C.D.A. (1962). In the College Mile Plan, possible new University buildings were to be organized along the new university avenue. As Mears’ primary concern was the redevelopment of the cityscape – proposed new University buildings were in a courtyard layout – and he had no formal contact with the University authorities, the College Mile Plan had little consideration with regard to the organization of the University community. Holden’s plan absorbed Mears’ concern for cityscape while creating a completely pedestrian precinct for the University. His proposal for forming the campus was to connect a series of independent buildings by squares and landscaped green spaces. However, the low density of this rural campus – such as the Science accommodation in George Square – showed a lack of connection with the urban character of Old College, McEwan Hall and the other new university buildings in the Bristo area. The plausibility of his plan was undermined by a lack of clear information from the University authorities as to how the University would be expanded. Furthermore, such a low density, as indicated by the plan, would not be

satisfactory to the University authorities who wished to include as much teaching accommodation as possible within this central precinct.

In 1955, Basil Spence replaced Holden's plan with its motif of interconnected courtyards. He endeavoured to reconcile the concept of a courtyard setting within an urban context, by proposing a theme of multiple tower blocks which would manifest distinctive architectural forms and would also increase the accommodation for the teaching facilities within this area. He also grafted aspects of his planning concept for Sussex University onto the Edinburgh context by proposing a chapel in an island setting. The problems with Spence's plan were mainly twofold. First, it shared the disadvantages of the inward-looking plans of other universities such as Essex and Bath. Charles McKean comments that Spence's approach was 'a withdrawal from city life and the Old Town into a semi-private, semi-suburban cultural enclave, within which the authorities would be free to start with a virtual *tabula rasa*'.³⁷⁷ The design of the boundary of the University Precinct clearly lacked adequate attention. Second, it was ironical that the practicality of Spence's plan was undermined for the same reasons for abandoning Holden's proposal – namely, the architect was not provided with adequate information bearing on the policy for university development.

In 1959, Spence's plan was replaced by what can be described as a more socially orientated proposal by the architect Robert Matthew. With initial high regard for economy, a podium was regarded by the architects as a means of germinating an ideal social and academic community through the medium of architectural design. Miles Glendinning regards this plan as being 'a boldly open-planned University redevelopment' and he recognizes that 'to Matthew, the formal task of Modernism was above all the expression of the free flowing of space, outside and, preferably,

³⁷⁷ Charles McKean, *Edinburgh: portrait of a city* (London: Century, 1991), p. 218.

inside buildings'.³⁷⁸ The Matthew plan was similar in approach to those being proposed at Essex, Bath and Warwick. However, differing from these cases, in which service facilities and car parks were placed at the lower levels of the complexes, the sub-podium level conceived for Edinburgh, was intended to promote social and academic interactions within the faculties. It has to be conceded that vehicle access to the basement level and openings in the podium, complicated the sub-podium floor concept. In today's reality, this problem is not so severe since only a minor part of the sub-podium floor, of the whole area, was completed (figure 4.55). It may be argued that the labyrinth was a flawed concept and was ill suited to the randomness of social interactions. Simply stated, the free flow of people was not possible at this level, in which segments of functions were connected by winding passages.

In 1962, Percy Johnson-Marshall's plan expanded the concept of the podium into the wider area of the University/Nicolson Street C.D.A.. Meanwhile, individual projects were designated to different architects together with the implementation of the C.D.A.. It was proposed that the plan would be carried out in four phases over twenty years. The C.D.A. Plan focused on the massing of the new buildings and their relationship with the George Square garden. The major concern of the detailed plans of different phases was the optimization of efficiency and the flexibility of the teaching accommodation.

The paradox associated with the C.D.A. plan was that, on one side, the built environment was conceived in a fixed way – the free flow of pedestrians above the traffic – while, on the other hand, it left connections between different parts of the project undergoing redevelopment somewhat ambiguous. This point can be recognised when one examines the changes from the 1962 C.D.A. plan to the 1964

³⁷⁸ Miles Glendinning, '1945-75: An Architectural Introduction', in *Rebuilding Scotland: the postwar vision 1945 – 1975*, ed. by Miles Glendinning (East Linton: Tuckwell Press, 1997), pp. 1-46 (p. 16).

plan for the Faculties of Arts and Social Sciences buildings (Figure 4.56). Unlike the Arts buildings, the First Year Science teaching complex had changed little since its preliminary design was prepared in 1961, although its podium became functionally and topographically unjustified within the larger context of the C.D.A. plan. There was no indication as to how it would connect to other parts of the C.D.A.. Furthermore, the replacement of the open garden on the north side of the Faculties of Arts and Social Sciences buildings, by the inward looking linear blocks, not only led to a different spatial relationship between the Science and Arts buildings, but also created a totally different sense of place from that of the 1962 C.D.A. plan – in which space is more diversified and less centripetal.

The 1962 design can be considered in further detail with respect to the evolution of the design of the new Bristo Square by Percy Johnson-Marshall with advice of landscaping from Derek Lovejoy and Partners. The most striking changes, as evident in the various drawings leading to the implemented design, were not the abandonment of the proposed fountains and trees, but the relationships between the surrounding buildings and the square (Figure 4.57 & 4.58). It was reasonable that the design concept had to be subjected to frequent changes and modifications; however, the square, as implemented, did not succeed in facilitating 'a great meeting-place for students'.³⁷⁹ Due to financial and planning reasons, the construction of the new Student Centre and the reconfiguration of the Square had to be carried out separately, in 1973 and 1980 respectively. This separation broke the intended connection between the Square and the surrounding buildings. On one hand, the final plan of the Potterrow Student Centre laid much less emphasis on engaging the building with the Square than on creating an inward-looking character. On the other hand, the sunken square, with steps connecting to the surrounding pedestrian routes created a shortcut through the urban fabric and, on the other, a place for occasional graduation

³⁷⁹ Percy Johnson-Marshall, 'The University of Edinburgh, a case study of evolution and planned redevelopment', *The Architectural Review*, 136 (July 1964), 45-51 (p. 50).

ceremonies – and in more recent times – gatherings of skateboarders! It is not a meaningful space for students' activities located beside two important union buildings. The C.D.A. plan had set the character of the Square but it did not specify the principles to exert control over the evolution of the planning process.

The lack of adequate specification for the principles for spatial relations between buildings, landscape and the urban scale, made the C.D.A. plan vulnerable to 'piecemeal' phasing of the redevelopment. The fundamental problem of the C.D.A. plan lay in its optimism which led to overlooking the intermediate periods of redevelopment. It is implicit in Christopher Alexander's general comments concerning the problems of the master plan: 'It is simply not possible to fix what the environments should be like twenty years from today, and then to steer the piecemeal process of development towards that fixed, imaginary world'.³⁸⁰

Although Spence, Matthew and Johnson-Marshall shared the same modernist ethos, their appreciation of university planning showed some divergence, as can be seen by comparing the campuses of Sussex and York or Bath University. Brian Edwards considers this comparison as 'picturesque enclosure versus rational planning'.³⁸¹ The 'marriage' of these two characteristics, in Edinburgh, could possibly have produced a good effect. By way of support for this remark, Lancaster University was regarded by some scholars as being a good example.³⁸² The University of East Anglia, and part of the Leeds campus, have also demonstrated these virtues. The overall contour of the buildings of East Anglia, derived from the landscape, contrast nicely with the rationally-configured teaching blocks while, at Leeds, the continuous teaching environment is a foil to the landscape. At Edinburgh, although the pedestrian zone was successfully created, after the completion of the new Bristo Square, the

³⁸⁰ Christopher Alexander, *The Oregon experiment* (New York: Oxford University Press, 1975), p. 18.

³⁸¹ Brian Edwards, *University architecture* (London: Spon, 2000), p. 34.

³⁸² *Ibid.*, p. 39.

university buildings, with their divergent values as product of different architects, failed to convey a clear picture of 'university space' as conceived by Spence, Matthew and Johnson-Marshall.

The diversity of the values and views of different architects can also been estimated from a consideration of the overall picture of the built fabric of the University of Edinburgh. Concerning the University/Nicolson Street C.D.A. plan, Percy Johnson-Marshall argued: 'The future development of the [University of Edinburgh] should, I suggest, be in the form of a wedge from the city centre, with permanent existing and new buildings of a compact form in the heart of the city and the larger space users out towards the suburbs'.³⁸³

The validity of this kind of debate became irrelevant at Edinburgh³⁸⁴ since the one-and-a half-mile distance between the King's Buildings and Old College, was beyond comfortable walking distance – which was one of main criteria for the postwar university planners. It has been explained in the previous chapter that, although bringing the science departments back to the central area was the desire of the University authorities, the reality did not allow for the abandonment of the King's Buildings. New Agriculture and Mathematics buildings were progressively constructed from the late 1950s, and strengthened the binary-centred configuration of the teaching installation of the University. Thus, it was crucial to consider how to treat the relationship between these two areas. Despite the advantages of constructing the first year science teaching building in George Square, this strategy of integration among faculties had the drawback of dividing the integrated teaching and research of the science departments.

³⁸³ Johnson-Marshall, p. 51.

³⁸⁴ There are similar examples with Edinburgh, for example, Birmingham University had two campuses: Edgbaston and Selly Oak. However, most of the urban universities developed around their unitary campuses.

Edinburgh's experience revealed major problems associated with the arguments such as those expounded in *The University in the City*. Firstly, the rational categorization of university uses in different locations in the city paid little attention to the academic structure of the university. Secondly, the notion of 'getting the best of both worlds' had the potential of leading to a kind of mental dichotomy between the university centre and satellites in the outskirts of the city. This notion was based on the opposition to the so-called 'escape psychology' – developing new campuses in suburban sites away from cities. Thus, the logic of those critics was more inclined to the 'urban' than the seemingly 'urban-suburban'. The King's Buildings of Edinburgh University was planned as an expedient in the 1920s. However, this situation was allowed to continue right through to the 1960s – even when the University authorities realized the implausibility of abandoning this satellite. The architects certainly had concern for coherence in architectural design, in terms of scale, materials, styles and the effect of time, but they did not lay emphasis on landscaping between the buildings (figure 4.59). In addition, the failure to consider the students and staff's amenities, for the site as a whole, prevented the various buildings from forming a lively and integrated campus. Moreover, although the King's Buildings are within a suburban area, the communal life of the people, who study and work in this 'science satellite', should have been a major concern in its planning. Under this unbalanced policy of university development, the King's Buildings became more in the nature of a laboratory centre than a genuine university campus for teaching and research on the sciences (figure 4.60). To this day, the numbering of its entrances, in a similar way with that of a typical industrial estate, is not encouraging. Within the larger historical picture, the contrast in planning, between George Square and the King's Buildings, did little to overcome the existing physical barriers; rather it had the effect of strengthening the separation within the overall fabric of the University.

With hindsight, it would seem that, in the complicated urban context of Edinburgh,

the conventional planning strategy – which was commonly applied in other suburban campuses – was not capable of fulfilling the aspiration to the ideal of a ‘C. P. Snow’-style University. Furthermore, problems of student housing in the University of Edinburgh remained a great challenge to the postwar concept of university planning for a ‘total environment’.

The relationship between living and teaching in the development of the University of Edinburgh

By the close of the 1960s, the development of the University of Edinburgh had established three major centres of its built environment, namely: the Faculties of Arts, Social Sciences, Medicine, Divinity and Music, around George Square, and the Science and Engineering departments at the King’s Buildings – with halls of residence in Dalkeith Road (figure 4.61). There were criticisms in the 1950s of University’s policy of constructing halls of residences at the Salisbury Green site. Ian Simpson said: ‘The siting of halls of residence at Salisbury Green, a mile distant from the University Old College and the Students’ Union and other important social and recreational agencies, is retrograde in tendency’.³⁸⁵ He quoted the Report of the U.G.C. Sub-Committee on Halls of Residence in order to set the University of Edinburgh’s policy against the agreed nationwide policy that students’ housing should be close to the university centre. The early planning of the University centre, in the 1940s, conformed with the national ethos. In his College Mile Plan, Frank Mears recommended the conversion of existing houses, in George Square, into staff and students’ residences. In 1944, William Oliver had suggested that halls of residence should be planned between Buccleuch Place and the Meadows. Later,

³⁸⁵ Rev. Ian Simpson, *George Square and University Development Plans Statements following the receipt of a letter, dated 16th June 1958 from the Secretary, the Department of Health for Scotland, communicating the decision of H. M. Secretary of State for Scotland, not to grant a public inquiry into ‘the proposals of Edinburgh University for development in George Square’ as requested in representations made by letter on 4th and 18th August, 1956, 24 June 1958*, Edinburgh Room Archives, The City of Edinburgh Library.

Charles Holden incorporated Oliver's idea in his 1947 plan for George Square and the surrounding areas – by using existing tenements in the designated area as staff houses and students' halls. However, the University authorities abandoned this idea later in this decade. This change can be analyzed from several angles. First, financial support for constructing halls of residence for the universities was not on the agenda of the U.G.C. in the early 1950s. There is a hint of this in the words of Lord Fulton, the first Principal of Sussex University. He discussed the difficulties they faced during the planning stage of this new institution, remarking: 'To build residences, whether conventional or as blocks of student flats, was ... what the new universities may not do with their initial capital grants from the public purse'.³⁸⁶ Others remarked: 'The need for university residence was already far greater than anything that the Government can provide'.³⁸⁷ Construction of students' halls largely relied on the goodwill of private benefactors. In Edinburgh, the Salisbury Green site was the generous donation of Donald Pollock – to be used for students' halls. Second, concerning the traditional relation of the University with the City – in which students used to live in lodgings and flats – the University authorities did not conceive of turning the University of Edinburgh into a purely residential university.³⁸⁸ Third, the choice of the halls of residences, at this site, was also because of the quality of its environment. As the University authorities argued: 'The Salisbury Green – St Leonard's site is one of the finest in the country, abutting on open spaces and affording a magnificent view of Salisbury Crags, Arthur's Seat and Duddingston Loch'.³⁸⁹ The derelict condition of the urban tenements, designated in Oliver's suggestions and Holden's plan, contrasted starkly with the vision of the University authorities for a leafy environment which was 'taken for granted'³⁹⁰ and a

³⁸⁶ Sir John Fulton, 'New Universities in Perspective', in *The idea of a new university: an experiment in Sussex*, ed. by David Daiches (London: A. Deutsch, 1964), p. 14.

³⁸⁷ University Grants Committee, Great Britain, *University Development, 1957-1962*, p. 89.

³⁸⁸ *Building sites: Salisbury Green, Official statement of university policy*, (Edinburgh, 1951), p. 2.

³⁸⁹ *Ibid.*, p. 3.

³⁹⁰ In *The Experience of the higher education*, Peter Marris argued that there lacked of serious

pre-requisite that halls demanded. This conflict can be regarded as the product of an interaction between the urban situation prevailing in Edinburgh and the wider nationwide attitude of treating living and teaching differently – as ‘student ‘living’... opposed to ‘learning’”.³⁹¹ As ‘living’ had different environmental requirements from ‘teaching’, so, went the argument, they must be designated different locations in the city. Fourth, there had an urgent need for more housing in the City after the War. This being the case, it was difficult to find an urban site which would have the capacity for meeting the University authorities’ desire for concentrating halls of 1,000 student places. The University fought hard to defend its perceived right to develop this site against possible adverse planning decision from the local authority.

A further trend can be noted here. In the 1960s, the Planning Consultant to the University developed a different opinion from the University authorities regarding the location of the students’ residences. Percy Johnson-Marshall regarded the proposal, in the University/Nicolson Street C.D.A. of 1962, as an opportunity for bringing students to live close to the university centre. He argued:

The University had a programme of Halls of Residence in other parts of Edinburgh, but I would suggest that as much residential accommodation as possible be provided within the Planning Area. These may well be good opportunities of providing some of this in conjunction with the proposed new shopping centre... There is also the possibility of providing some staff accommodation together with a hotel which could be of considerable service to the University.³⁹²

reflections of the relevance of the historical pattern of student housing to the modern condition.

³⁹¹ John Donat, ‘Living in universities’, *The Architectural Design*, (December 1966), 590-632 (p. 590).

³⁹² Percy Johnson-Marshall, *Progress report to the University Development Committee*, (Edinburgh, February 1962), p. 4.

For the 125-acre C.D.A., the major functions designated were for teaching accommodation and commercial development. Two minor residential areas were pushed towards the southern part of the precinct and the area of the Pleasance (figure 3.33). As a consequence of this functional rearrangement, the implementation of the C.D.A. would aggravate the housing shortage around the City. According to Abercrombie's 1949 Civic Survey, there were around 1,800 properties suitable for living within the University and Educational Precinct and more than 4,600 dwellings in the St Leonards area and the Pleasance. Johnson-Marshall's 1962 Planning Surveys showed that 'there was a heavy population overspill involved amounting to some 8,488 persons. The overspill was caused by families living in dwellings whose sites will be used largely for non-residential purposes on redevelopment'.³⁹³ Further incorporation of the inner ring road, featuring in the C.D.A. Plan in 1968, meant that a larger loss of housing in the central area had to be expected because it would lead to considerable demolition of existing houses in the areas of St Leonards' and the Pleasance. Consequently, the major part of the students' residential accommodation had to be found in private-rented dwellings.

From the above analysis, it can be deduced that if the C.D.A. had been accomplished, it would have been more difficult, than in the existing situation, for students to find accommodation within a reasonable distance from the University centre and the city centre.

A further criticism can be made. Little coordinated consideration was given to the planning of teaching accommodation in relation to students' residences in Edinburgh. Attention was paid to the integration of teaching, in the city centre of Edinburgh, but residential accommodation was relegated to second place. One scholar criticized the circumstance of planning students' accommodation in the urban universities: 'Local

³⁹³ Ibid., p. 10.

authority housing programmes ignored this substantial slice of our population so that when a gesture was made to house them, they were separated out of society into 'special' categories and hived off into [an] essentially exclusive environment'.³⁹⁴ The lack of planning cooperation with the local authority, and the limited financial support from the government for purposely-built students' accommodation, impacted upon the University authorities who experienced great difficulty and could only act with expediency as they faced the responsibility for securing students' residences of distinction and quality. They were frequently thwarted in their endeavours to achieve careful and sensitive planning.

The C.D.A. had been shelved by the 1970s and, to this day, various halls of residences – such as Churchill House, Mylne's Court and Kincaids' Court – have been constructed, and University-managed houses and flats have been established across the Old Town and the South Side. In retrospect, the criticism that having students live in Salisbury Green would cut the students off from the urban life, seems to have been exaggerated. The distance of the Salisbury Green site to the city centre – ten to fifteen minutes on foot – is not unacceptable. However, the situation of 'nine-to-five', that had worried many scholars and planners fifty years ago, still exists. Except for the Main Library, which is a strong magnet to students particularly in the exam time, the University Precinct around George Square presents a picture of closed offices by late afternoon. Although a Student Centre was established beside the area of teaching accommodation, its attraction to students during their extra-curricular time appears to be dwarfed by the variety of pubs, bars and restaurants in the surrounding urban areas. The present existing built fabric, around George Square, is only part of the original ambitious plan which included a larger volume of teaching buildings. It is interesting to conjecture if this 'nine-to-five' effect would have been intensified if the Plan had been fully implemented.

³⁹⁴ Donat, p. 590.

The question may be asked: does the 'nine-to-five' attitude really matter in Edinburgh? For many other urban institutions, a considerable proportion of the students live off-campus. For example, other universities, such as Newcastle, Manchester and Birmingham, have a wide distribution of student residences around their cities (Figure 4.62). As a matter of fact, the University of Edinburgh, from its inception, was associated with a clear demarcation between teaching and students' living. The Town Council could not afford to build student residences though they really wanted to follow the collegiate model. It seems that the concern about the 'nine-to-five' effect, after the War, was not really against the inevitable demarcation, but derived from a concern that the close ties among the university community would be lost, or could not be formed, under the vast expansion of the student body. Another important implication of the 'nine-to-five' effect, mentioned above, was its impact on the urban environment in Edinburgh. The large concentration of single-purpose teaching accommodation on the South Side, was perceived as causing considerable loss of vitality of urban space, with residences being largely displaced to the periphery. This problem was not merely about the University's development, but citywide. As McKean argued: 'According to the 1949 [Abercrombie] Plan, Edinburgh was destined to develop as a city with a dead administrative centre of offices ... The population was exported to the periphery, and the braes of southern Edinburgh swarmed with expatriate flats in towers and terraces'.³⁹⁵

By ways of retrospective reflections, the South Side was an area which was regarded as being less valuable than the Old Town and the New Town, the kind of national treasure which had long been acclaimed since the time of Hugo Arnot and Thomas Shepherd. As David Daiches analysed: 'The New Town could bring more wealth and influence to bear on the final decisions – which were taken by the Secretary of State

³⁹⁵ McKean, pp. 219-20.

for Scotland – and so on the whole of the New Town won its battles. The Old Town was not involved in these controversies and has been well treated by the Corporation. The real loser was South Central Edinburgh, the older New Town’.³⁹⁶ Prior to the construction of the New Town, wealthy people of eighteenth century Edinburgh started to move to the southern suburb. For example, planning of George Square started in the same time when the plans of the New Town were yet on the drawing board. For Daiches, the South Side, with various squares³⁹⁷, actually set an example for the grand plan of the New Town. However, the importance of the South Side to the history of the eighteenth century urbanization in Edinburgh was largely overlooked in the post-war period of comprehensive development which was based on the judgment of heritage – ‘best of the old’. It can be argued that, when George Square, the most desirable place in the South Side, was granted permission for redevelopment, other streets and squares in this area were not able to justify their conservation, under the criteria of the local authority and the Secretary of State.

Such a negative impact of lack of support of residential function on the urban space in the South Side of Edinburgh, can also be seen in Bath, where the situation goes to such an extreme that streets and squares are dormant by the late afternoon – in contrast with the vibrant historic city. In Edinburgh, there were criticisms concerning the self-containment of the University precinct, since some public facilities of the University, such as the Potterrow the Student Centre, deny access to the general public. In 1976, David Black commented: ‘Where there once flourished a locality of numerous shops and small business ... the Edinburgh University Student Health Centre and Refectory, from which local people are barred, unless they be students or university staff’.³⁹⁸ By way of comparison, the planning of Manchester University is

³⁹⁶ David Daiches, *Edinburgh* (London: Hamilton, 1978), p.232.

³⁹⁷ Some squares, such as Adam Square, Brown Square and Argyll Square, were laid out in the same period with George Square. These three squares were wiped out for the newly built Chambers Street under the City Improvement Act of 1867.

³⁹⁸ David Black, ‘Heritage and History’ in *The Unmaking of Edinburgh: the decay*,

a good example of bringing the public and the University together by installing shared facilities in the Education Precinct.

The sense of belonging within the University of Edinburgh was not strengthened through the redevelopment, as the previous section has argued. The expansion of Edinburgh University showed the limit of the post-war idea of 'a total environment' in university planning. This idea required the strong economic support and coherent social circumstances which Edinburgh could not provide. The inherent drawbacks of the C.D.A. plan, and the lack of balance between two major teaching installations, mitigated against the concept of coherent campuses. Given the problems of providing adequate students' residences, the post-war ideal of integrating teaching accommodation and students' residences, as achieved in some new universities and at some urban institutions, such as Leeds University, was not attained.

Analysis of the planning of Edinburgh University, set against the backdrop of postwar university planning in Britain, suggests that, in the shadow of the complexities and contradictions of both the internal planning and external considerations of the university, architecture, alone, could not lead to the creation of an ideal university environment as it was envisioned by the vice-chancellors and their architects in the era of mass education. The ambitions of university development were accompanied by deep uncertainty and paradox. A summary of these problems associated with the post-war expansion of the University of Edinburgh will be made in the next section of the thesis – the Conclusion.

depopulation and destruction of central Edinburgh: an argument for city centre living and a call for action, ed. by Helen Peacock and Edinburgh University Student Publications Board (Edinburgh: Edinburgh University Student Publication Board, 1976), pp. 10-20 (p. 11).

Conclusion

This thesis has attempted a critical exploration of the post-war expansion of the University of Edinburgh with particular attention to the central area. The overarching conclusion is that the overall pattern of redevelopment of the University largely reflected that of other universities in Britain at the time. Equally important, the built fabric of the University of Edinburgh was also shaped by external factors which originated in the urban situation of the City. Some recent commentators, such as Brian Edwards, have regarded the redevelopment of the University as being *ad hoc*. A fundamental aim of this thesis has been to show that the importance of this *ad hoc* pattern of university development, within the general picture of post-war British university expansion, had its origins in the tensions that existed between the university and city. Subsequent university development never fully addressed and resolved the often competing and conflicting demands that existed between the university and the city. The principal considerations that shaped the resulting outcomes will now be reviewed and conclusions drawn from them.

The University, its architects and the U.G.C.

The internal factors bearing upon the post-war university planning in Edinburgh were markedly influenced by the deliberations between the three principal groups of people who were directly involved, namely, the university authorities, its architects and the U.G.C.. The consensus between these people (often troubled and protracted) was ultimately the driver of the resulting university expansion. The provocative master plans produced under the impetus and determination of the University authorities, and its architects Spence, Matthew and Johnson-Marshall, made the university development in Edinburgh to be one of most prominent renewal projects

of urban universities in Britain. The evolution of the plans for the redevelopment of George Square showed a gradual match between the social ethos of these modernist architects and the underlying social democracy inherent within the expansion of higher education – a major achievement. The University's concept of a monumental image for its central area found expression in the image of multiple tower blocks. The parallel requirement for flexibility led to the generation of horizontal linear teaching buildings around George Square. As these architectural ambitions were being realized, the University authorities faced internal, and sometimes uncoordinated, development of the academic community – and the unforeseen demands for future expansion in student numbers. Unlike the suburban campuses which had relative freedom for growth and change, it was extremely challenging for the authorities of the University of Edinburgh to compile clear, or even adequate briefs, for its designers. Its architects consequently played an important role in complementing the fragmented thoughts of the academics, through the imaginative concepts of their architectural design. The 1964 plan for the Arts and Social Sciences precinct may be cited as such an example. The problem of this situation was that, when the physical plans of the University were hampered by social tensions and economic problems, the proposed re-integration of its academic community was hindered. The post-war university expansion revealed that university planning is a subtle subject, since opposite examples to Edinburgh's expansion – the match between the architectural form and academic structure at most of the suburban campuses – had shown inherited inflexibility for future changes.

The sometimes troubled attitude of the U.G.C. – often at odds with the university authorities and its architects – was another factor of post-war university planning in Britain. The executors of university expansion at Edinburgh – the University authorities and its architects – had more radical thoughts bearing on university planning than its sponsor, the U.G.C.. Moreover, the government's enthusiasm

fluctuated with the dictates of national politics and the health of the economy. After the war, the U.G.C. made productive quinquennial contributions to the University of Edinburgh. This support, however, reduced markedly after the mid 1960s. As a consequence, the U.G.C. exerted a crucial impact on the university planning through its cost restraints and proposed targets for expansion. With hindsight, the development schemes of the University of Edinburgh can be seen to have been considerably hampered by the cost restraints of the U.G.C.. The grants of the U.G.C. were always accompanied by constraining national requirements that imposed on the University specific targets for expansion, which, significantly, did not give adequate attention to the specific problems of the University. The situation of the University of Edinburgh was inherently different from that of the new establishments (then being created) in that it had to solve the pedagogic problems that had accumulated through history – notably the unbalanced development of different faculties in Arts and Science. The development for the Arts departments, which were in great need of accommodation, was a particular problem. This Faculty had great difficulty in obtaining adequate financial support given the national preference for improving teaching and research in the applied sciences – this was the era, we should remember, of the then Prime Minister Harold Wilson's *white heat of technology*.

Town and Gown relationships in Edinburgh

Another factor which had a crucial impact on the university planning in Edinburgh was the relationship between the University and the City. 'City', here, not only includes the local authority but also refers to the citizens. It had been long acknowledged that having a university within the city was of considerable cultural, economic and social benefit for the community. The existence of the university provided, and continues to provide, employment for local people. It '[filled the city] with the life-blood ... and gives tremendous vigour to any city in terms of curiosity,

of liveliness, of discussion... all the time the zest of real life'.³⁹⁹ As a consequence of the combined efforts of the University authorities and its architects, higher education retains its importance today in the urban identity of the City.

In postwar Edinburgh, the romantic notion of the university, as the hub of the city, or as some scholars emphasizes Geddes' notion of 'society in the University incubator',⁴⁰⁰, overshadowed the various conflicting interests to which reference has been made. Historically, the tensions between Town and Gown were no less prominent than the harmony. More generally, the widely-admired Oxbridge collegiate image was closely associated with many of the conflicts between the colleges and their surrounding community throughout the entire history of these two universities. With regard to Edinburgh, the designation of the University and the Education Precinct, in the 1950 City Development Plan – with supportive planning permission for the redevelopment of George Square, gave the impression of complete agreement between the University and the local authority. However, it has been shown that this apparent agreement was fragile under the changing economic situation within the country and the tensions between the different social groups in the City. The City Council's negligible contribution of 6% of the annual income for academic and architectural investments for the University of Edinburgh, highlighted that the investment in university expansion was largely regarded as a governmental responsibility and was not a primary responsibility for the local authority.⁴⁰¹ Eric Ives, Professor of English History at the University of Birmingham, commented upon the post-war university expansion as 'another consequence of the general national shift of power to Westminster' and that 'the most important change in higher education over the [twentieth] century [is] the transformation from a university

³⁹⁹ 'The University in the City', *The Architectural Review*, 136 (July 1964), 9-11 (p. 9).

⁴⁰⁰ Fenton, Clive B., *Appleton's Architects: building the University of Edinburgh (1949-1965)* (PhD Thesis: the University of Edinburgh, 2002)

⁴⁰¹ This figure was calculated according to the statistics from the publication: *The University Grants Committee. Great Britain, University Development, London: H.M.S.O., 1957-1972.*

which was independent to a university which is effectively treated as part of the public sector'.⁴⁰² This change, as Ives argued, led to 'the gap between university and local community'.⁴⁰³

With regard to the confrontation between the University and the conservationists, the architectural debates bearing upon the redevelopment of George Square, in the 1940s, led to broader disagreements. Firstly, there emerged opposing perceptions for the physical appearance of the university. As a matter of fact, university planning, in the post-war era, was largely subject to individual caprice and inclination. At Edinburgh, the University did not inherit any definite pattern for its planning deriving from previous centuries. Although diversity was widely claimed as a virtue for university planning, it also revealed a lack of common understandings as to what a university should look like. While the then Principal Edward Appleton and his architects proposed a form of total environment for the University of Edinburgh, the conservationists were more disposed to the pattern of Victorian universities in which disparate monumental buildings formed the identity. For example, in 1950, Robert Hurd criticized the idea of organizing university buildings around a quadrangle [George Square] and many people argued about the importance of having the residences of staff and students in the central area to establish the identity of the University. Secondly, there was resistance on the part of the conservationists, and other interested citizens, to the power which the University had gained under the impetus of the movement for national expansion of higher education. They regarded the university as being something of an alien force within the local community. Commenting on the University's occupancy of a large number of properties, required for future new constructions, one scholar expressed this feeling: 'There have always been fears about handing over such large powers to the university. When the

⁴⁰² Eric Ives, Dianne Drummond and Leonard Schwarz, *The First Civic University: Birmingham 1880-1980: an introductory history* (Birmingham: University of Birmingham Press, 2000), pp. xvi-xvii.

⁴⁰³ Ibid., p. xvi.

Universities (Scotland) Bill of 1858 was being mulled over, the Lord Provost, magistrates, and councilors of Edinburgh were thoroughly alarmed by the implications'.⁴⁰⁴ The conservationists' intervention into Edinburgh University's project for development – and their requests for public enquiry during the 1950s, may be seen as the expression of a desire for democratic control over decision-making in university design and city planning. Although this process was often very troubled and time-consuming, it can be seen as the forerunner of the champions for public involvement and user-intervention in the period after the 1960s. As George Nash, the American educationist, commented: 'Universities have not been the panacea for urban problems'.⁴⁰⁵ University expansion did not always have positive effects on the related urban surroundings. There were problems, such as traffic, noise and urban decay. How to incorporate students into the local community was another acute question for the University of Edinburgh since the provision of students' accommodation depended largely on the private sector – given the prevailing situation that the government was 'silent' about student housing.⁴⁰⁶ Problems related to student accommodation continue to this day. The tension has developed to such an extent that there have been recent actions by local residents in Edinburgh, such as the establishment of the Marchmont Action Group Promoting Initiatives for the Environment, for driving students, and other interlopers, out of their areas because of their perceived anti-social behaviour, noise and hygiene problems. Although the University is not directly responsible for the behaviour of its students – who are after all adults – the University does recognize the negative

⁴⁰⁴ George Rosie, 'Edinburgh University as Property Developer' in *The Unmaking of Edinburgh: the decay, depopulation and destruction of central Edinburgh: an argument for city centre living and a call for action*, ed. by Helen Peacock and Edinburgh University Student Publications Board (Edinburgh: Edinburgh University Student Publication Board, 1976), pp. 28-30 (p. 30).

⁴⁰⁵ George Nash, 'Introduction', in *The university and the city: eight cases of involvement, a report prepared for the Carnegie Commission on Higher Education*, ed. by George Nash (New York : McGraw-Hill, 1973), pp. 1-8 (p.1).

⁴⁰⁶ J. Rugg, D. Rhodes and A. Jones, *The nature and impact of student demand on housing markets* (York: Joseph Rowntree Foundation, 2000), p. 2.

impact of these tensions and their bearing on its reputation within the local community. The University authorities and the Estates and Buildings Office of the University are certainly aware of the opposition in the local community to proposals for constructing students' accommodation within some residential precincts. This has been the case in the past and it remains the case today to such an extent that, in 2005, the University started a programme of actions for minimising this problem by handing out a form of 'etiquette guide' for undergraduates – as a means of encouraging good social conduct.

It can be argued that the neglect of these problems originated in ways of thinking about university planning that were too inward-looking. They were concerned more with the contribution of the university development to its surroundings and neglectful of the potential negative impacts. This inward-looking was certainly prominent in the university planning of the period in question. Although Edinburgh University's C.D.A. plan seemed to be different from the collegiate and suburban patterns in appearance, it can be seen as a sort of 'simplified' and 'introverted' megastructure.⁴⁰⁷ One explanation for this aspect of planning may be that all manner of ambiguities and complexity, associated with the internal planning of the university, precluded more profound and systematic investigation into the external factors. Fundamentally, the inward-looking attitude derived from the general attitude towards university expansion in the post-war era. Although university education had broken away from the tradition of the ivory tower, there was a prevailing consciousness of the university as a somewhat superior force in the society. Martin Pearce's paraphrase of Donald Schon's metaphor is relevant here. He described the suburban campuses, on which many universities stood, as being on 'a high, hard ground, looking down to the swamp of the day-to-day urban life'.⁴⁰⁸ This, somewhat bleak metaphor can be

⁴⁰⁷ Miles Glendinning, '1945-75: An Architectural Introduction', in *Rebuilding Scotland: the postwar vision 1945 – 1975*, ed. by Miles Glendinning (East Linton : Tuckwell Press, 1997), pp. 1-46 (p. 32).

⁴⁰⁸ Donald Schon was an American educationalist, famous in education for his 'the learning

applied to the post-war development of urban universities such as Edinburgh.

The University, as the hub of the City, was the tradition which was taken for granted in the university development in Edinburgh. The relationship between the Town and Gown in post-war Edinburgh was provocatively perceived by some scholars. Stephen Maxwell, a former Honorary Fellow in Politics at Edinburgh University, commented in the article *Edinburgh University and the Community*:

Edinburgh may still be proud of its university but the relationship has lost its old intimacy ... The University has struggled to retain most of its facilities physically in Edinburgh but it is no longer of Edinburgh ... Incorporation of Edinburgh University ... in a system of higher education financed and controlled by the central state, robbed Edinburgh of its unique status among British universities.⁴⁰⁹

Some would argue against the cynicism conveyed in these words, but the value of this comment lies in that the provocation rang the bell that the tradition of the university should be carefully examined, just as Lionel Brett had argued about the attitude towards the planning of a new university in the 1960s: 'The idea of a university should not settle into a thought-proof groove'.⁴¹⁰

The problems and challenges confronting university planning in Edinburgh after the Robbins era – looking to the future

At the end of the heroic period, fierce criticisms of university development rose with

society', 'double-loop learning' and 'reflection-in-action'.

⁴⁰⁹ Stephen Maxwell, 'Edinburgh University and the community', *Scottish Review*, 31 (August 1983), 19-26 (p. 21).

⁴¹⁰ Lionel Brett, 'Problems of planning the new universities', *The Architectural Review*, 134 (October 1963), 257-64 (p. 264).

the advent of student movements. There were even 'rumours of a sizeable, unofficial list of candidates [of new universities] for closure'.⁴¹¹ Ideas developed in the 1950s and 1960s about university teaching and students-living, came to be viewed as the expression of paternalism. In addition, there were progressive changes in university education. As Martin Pearce remarked: '[It is] the change from a teaching-based culture to a student-centred learning environment ... From being a passive receiver of given wisdom, students have been encouraged towards the adoption of a far more proactive role in their education'.⁴¹² The change on the other side of the coin was that 'students were now treated as consumers or customers'.⁴¹³ Britain followed America in the tendency to commercialisation in higher education. The tuition fee became an important part of the income of universities since they could not survive on the revenues in their 'begging bowls'. In the decades following the 1960s, mass education has been firmly established in the universities which have been inclined to 'less intimacy [and] less ambivalence'.⁴¹⁴

The attitude towards university planning had also been radically changed. The belief in 'a total environment' was criticized as being 'bourgeois' and collapsed after the 1970s. The quality of facilities, instead of the quality of environment in the general sense, became the foremost factor for determining the planning of universities sited within the cities. A comparison of the 1950s plans for the redevelopment of George Square, with later extensions to the King's Buildings, reveals this tendency. While post-war university planning sacrificed individuality of buildings for the integrity of the overall plans, university development, after the heroic period, generally had more concern on the self-containment of individual buildings and facilities.

⁴¹¹ Stefan Muthesius, *The Postwar University: utopian campus and college* (New Haven: Yale University Press, 2000), p. 174.

⁴¹² Martin Pearce, *University builders* (Chichester: Wiley-Academy, 2001), p. 14.

⁴¹³ Muthesius, p. 289.

⁴¹⁴ Shedon Rothblatt, *The Modern University and Its Discontents: The Fate of Newman's Legacies in Britain and America* (Cambridge: Cambridge University Press, 1997), pp. 86-87.

At the end of the twentieth century, there was a considerable change in the academic structure of the University of Edinburgh with its seven Faculties being merged into three Colleges, namely: Humanities and Social Sciences, Science and Engineering, and Medicine and Veterinary Medicine. Furthermore, part of the Medical School has moved with the Royal Infirmary to the suburban site of Little France. Thus, the three colleges are physically separated on three independent sites which are distant from each other. Compared with the situation in the post-war era, the major challenge now is how to organize the university community under the clear demarcation in academic structure and widely separated facilities. Looking to the future, in the contemporary *Information Age*, the technology of e-learning is envisaged to prosper. There is a strong sense, echoed by many, that the physical environment will gradually lose its importance in higher education. There are views that the tension between 'Town and Gown' and academic boundaries will be crossed by the homogenous World Wide Web. It is true that the introduction of distance learning has such effects. The Open University, established in 1967, has been a successful experiment and, indeed, precursor for the 'virtual university'. It manifestly does not rely on the physical environment for inculcation of its education. However, since humans are social beings, the physical environment will continue to have a crucial role in communication and education, which the World Wide Web cannot supplant. Moreover, under the increasing commercialization of higher education, there is a persistent belief that innovative buildings, and well-planned campuses, are crucial to attract students and the best-quality staff in order to ensure that the university survives in the increasingly competitive education market. The University of Edinburgh is certainly mindful of these developments. Today, the University of Edinburgh is proposing another ambitious regeneration plan for the central area around George Square, with the inaugural £40 million project of The Informatics Forum on the current car parking site – a legacy of the demolition of housing in the 1970s. There are other consequences implicit in this development. The problematic

underpass of the roundabout of Potterrow may be eliminated and the Students' Centre may face radical reconstruction to adapt to possible changes in the road pattern. For the Master Plans, lessons should be learned from the problems and conflicts in the post-war development that have been considered in this thesis. Firstly, the broad view of land use should be closely combined with the three-dimensional proposals. The chaos in the 1960s campus around George Square was largely attributable to the lack of three-dimensional control of the overall image. Secondly, the balance between order and flexibility is crucial for the University's Master Plan. The major problem of the 1960s C.D.A. plan was its failure to maintain order and to allow sufficient freedom for individual buildings to cope with the changing urban situation. With regard to the re-use of vacated buildings, it should be emphasized that consideration of the redevelopment of any existing buildings, in the central area, should be included in a general plan which has a comprehensive view of the whole precinct – such as the existing and proposed academic structures and space usages. The current strategy of redeveloping the Main Library, into a highly self-contained entity, raises the potential problem of jeopardizing the integrity of the central area. Most fundamentally, both 'Town and Gown' should carefully evaluate the existing and potential tensions with a view to working together for the revitalization of the academic community and the City.

Turning aside from these contemporary and future developments, it is fitting that the closing remarks of this thesis should take the form of a final summary on the achievement of the University of Edinburgh (Central Area) in the post-war period and its meaning to us and later generations. The gestation of the redevelopment was slow and protracted and the birth of its creations was sometimes painful. The vision was, in part, realized and, in others, was largely tarnished. What is not in doubt is the integrity of the academics and their architects. They strove determinedly to realize their dreams and to give them lasting, and worthy, built form. Despite the problems

and contradictions recognized by this research, their legacy and passion is with us today and will endure with our ever-expanding programme of higher education.

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- Figure 4.62** Distribution of students' residences at four universities (Cambridge, Manchester, Nottingham and Birmingham), 1967

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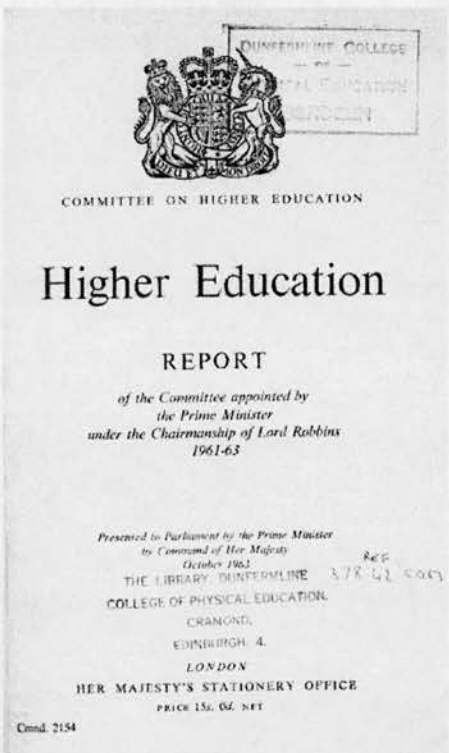


Figure 1.1 The Robbins Report, 1962

The Robbins Report was the watershed for British higher education reform during and after the 1960s. It gave a clearer vision and more ambitious inspirations for the expansion of the universities than its predecessors. It opened the ‘Robbins Era’ in the development of the British universities.

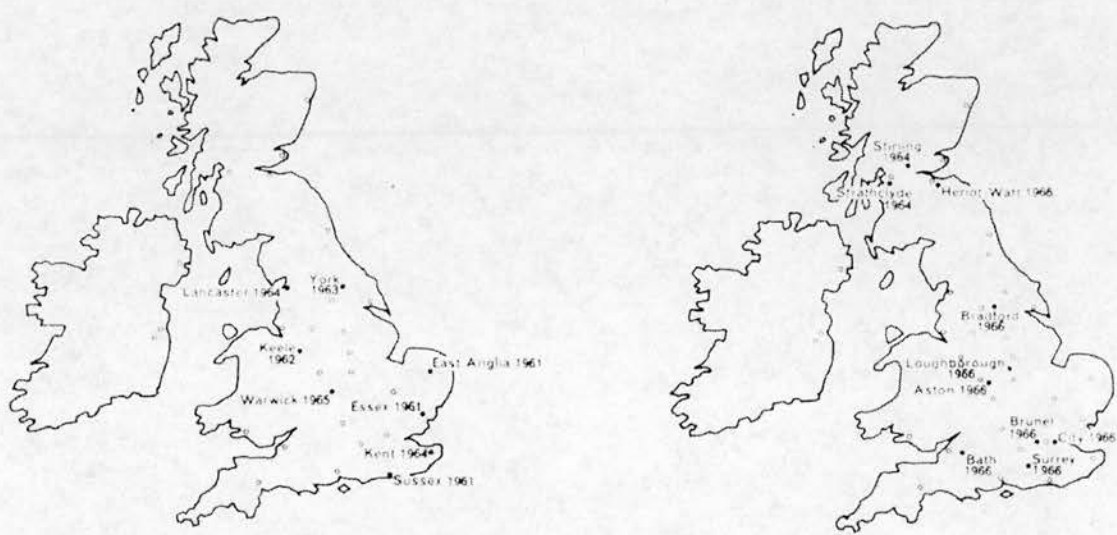


Figure 1.2 Distribution of new universities in Britain in the 1960s

The left map locates eight new universities approved in the early 1960s, and the right one indicates ten new establishments of the post-Robbins period. Some universities were newly-founded, whilst others were former colleges granted university charters.

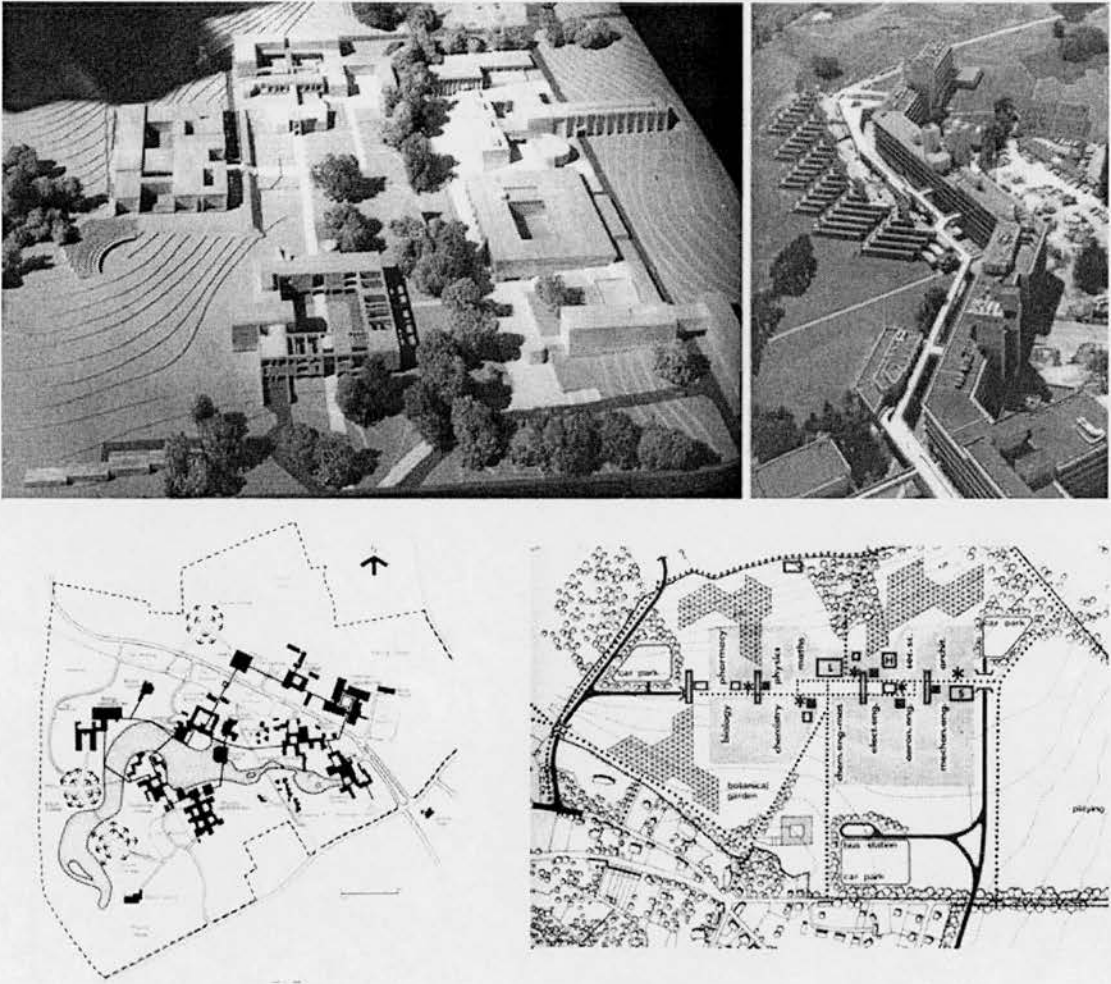


Figure 1.3 Different concepts in play: four new campuses in England in the 1960s

The top left model is of the Sussex campus designed by Basil Spence. The top right image is an aerial view of University of East Anglia by Denys Lasdun. Lower left is the plan of York University designed by RMJM. Lower right is the conceptual plan of Bath University by RMJM. These images show different ways of conceiving a university during the post-war era. Basil Spence planned the Sussex campus as a sylvan academe, intermingling of the built environment and natural surroundings, whilst Denys Lasdun conceived the East Anglia campus as a huge building complex contrasting dramatically with the natural landscape. At York University, a molecule pattern was proposed in which departments were grouped around individual colleges, whilst at Bath University, the communal spaces connected different departments which would be able to grow at right angles to the main spine.

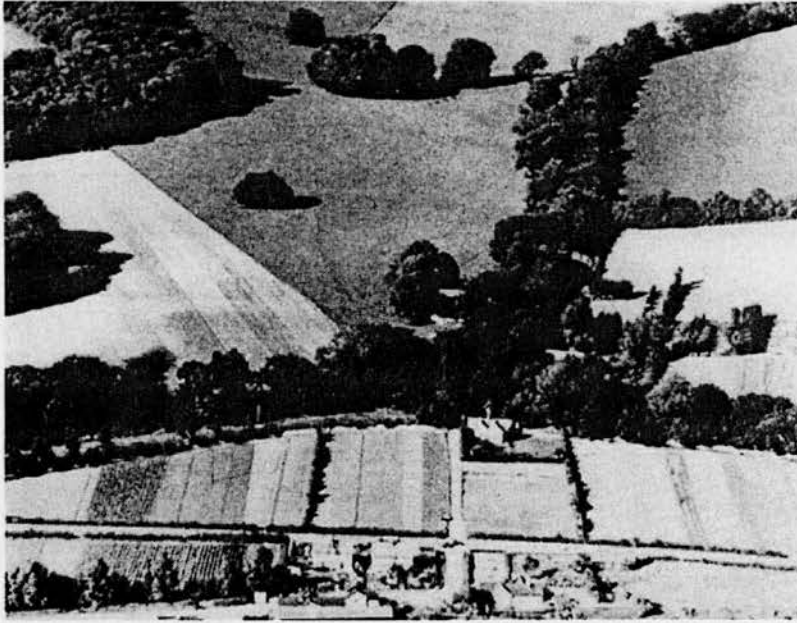


Figure 1.4 Aerial view of the site of the University of Sussex before construction

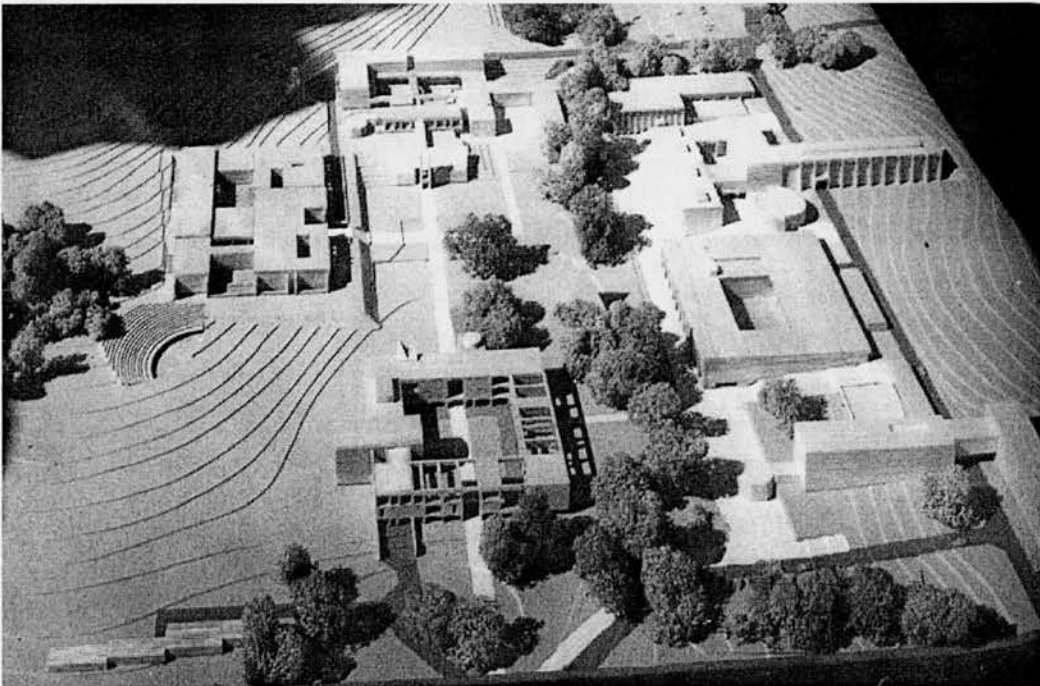


Figure 1.5 Model of the Great Court of Sussex University by Basil Spence

It was expected that this kind of rural site, with beautiful natural landscape, would attract students and high-quality staff, and allow freedom and adequate space for experiments in university education and university planning. Inspired by the campus tradition, Basil Spence determined that design of any man-made construction should derive from a single principle: the natural landscape would dominate the scene. The heights of buildings were no more than three to four storeys. He uses the flat area at the west part of the site as the main courtyard. The building at the bottom of the picture is Falmer House, starting from which, clockwise, are the Main Library, Arts, Applied Sciences, Chemistry, Physics and Biology.

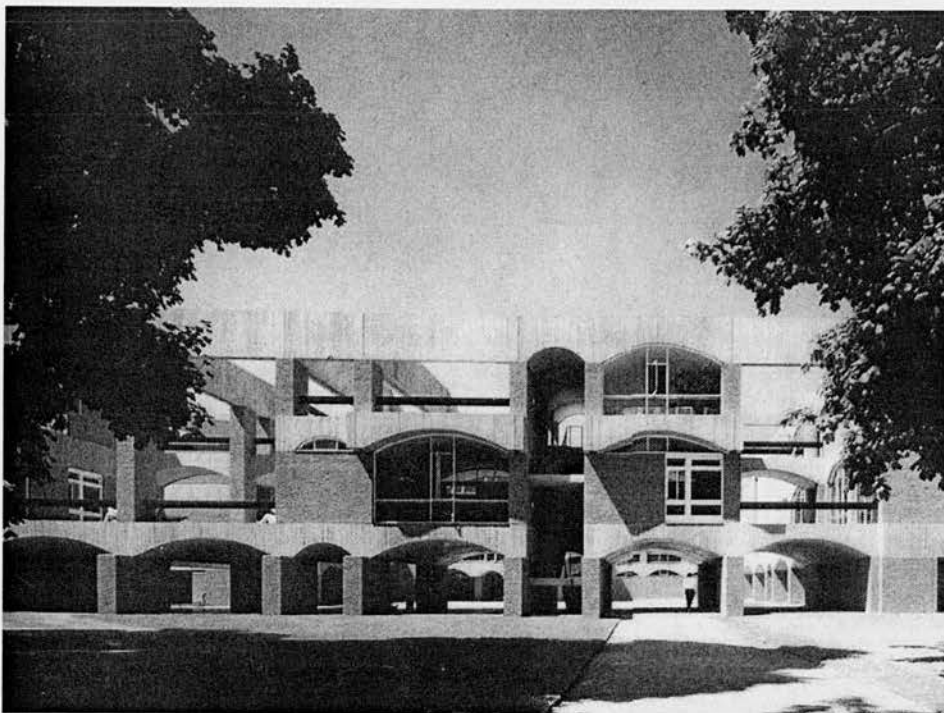


Figure 1.6 The east façade of Falmer House, Sussex University

The most important factors which made this building popular among the critics of the 1960s and even onwards, were the motif of barrel vault and the contrast between solid and void. The barrel vaults seemed to have a rhythm of 'long-short', but actually were randomly placed. The considerable transparency of the building has the advantage of absorbing the man-made spaces into the natural landscape.

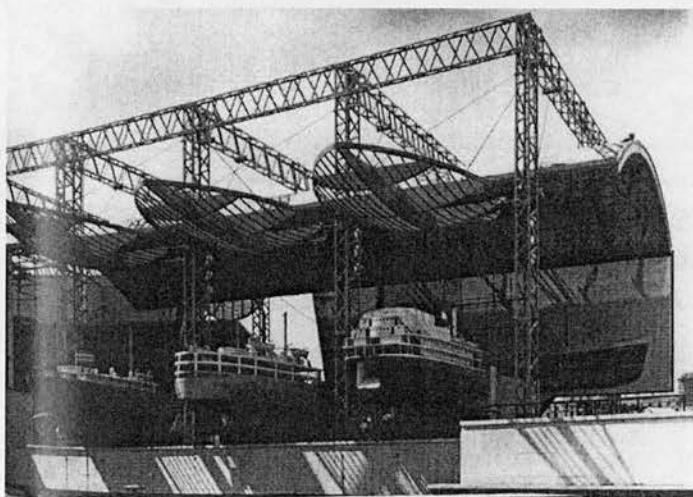


Figure 1.7 Sea and Ships pavilion at the South Bank Exhibition of the Festival of Britain, Spence, 1951

This imaginative exhibition pavilion gives a foretaste of some of the underlying themes of the later architectural practice of Spence. The extremely slender pylons are forcefully contrasted with the warped panel backdrop. 'Striking contrast' was the principle which Spence applied throughout his career. It is exemplified in Sussex campus and Edinburgh's George Square redevelopment.

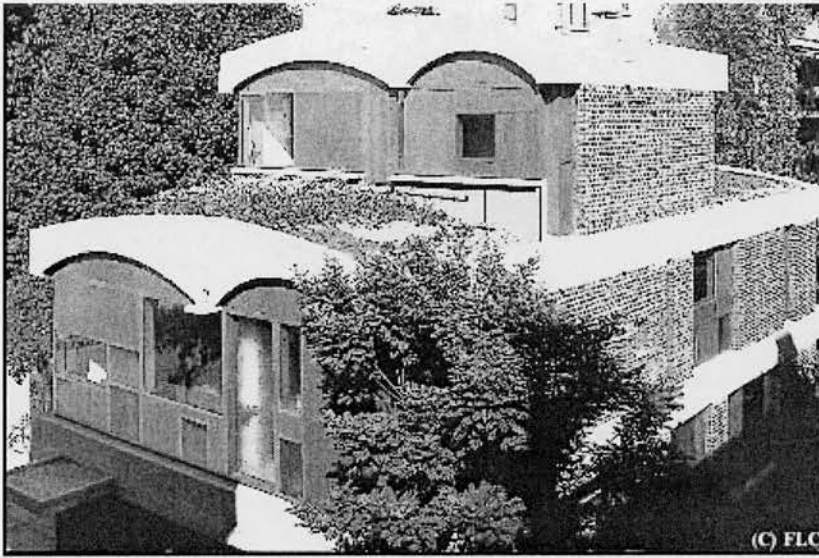


Figure 1.8 Maisons Jaoul by Le Corbusier, 1955

These houses for the Jaoul family are typical of Le Corbusier's later work, which depart from the machine aesthetics so characteristic of his work before the 1940s. The brick walls support the traditional Mediterranean vault structure. It was probably the vernacular image which inspired Basil Spence.

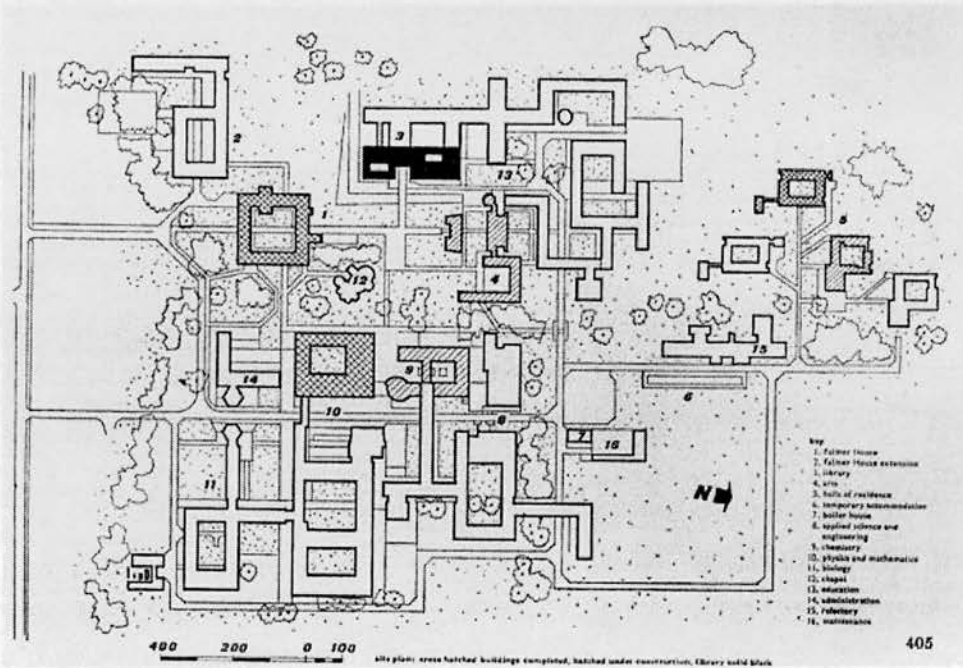


Figure 1.9 Plan of further stages of Sussex University

The shadowed buildings were the first stage of construction of Sussex campus. Extensions to these buildings would be in the form of independent and connected courtyards. Many critics in the 1960s worried that the original core of the campus would be too small or too big for later extensions. From the existing situation of the campus, it can be argued that what really mattered for the campus was whether the extensions to the courtyards would inherit Spence's original design in an imaginative way.

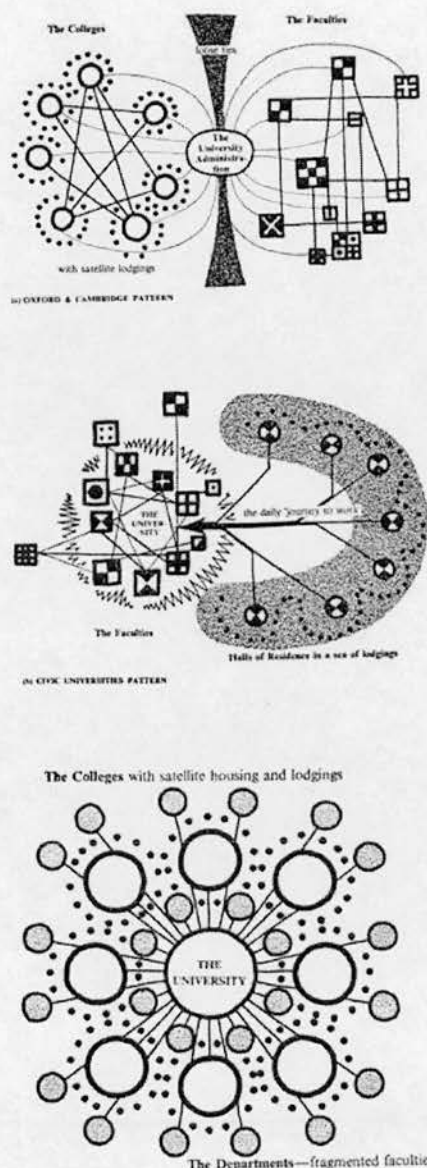


Figure 1.10 Comparison between the social patterns of York University and those of Oxbridge and civic universities

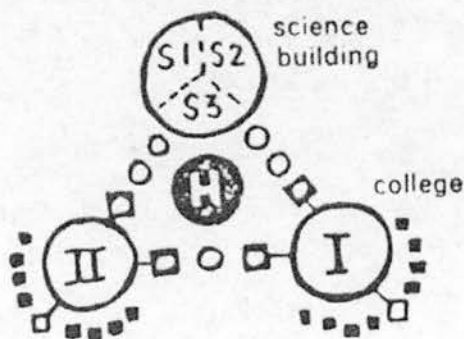


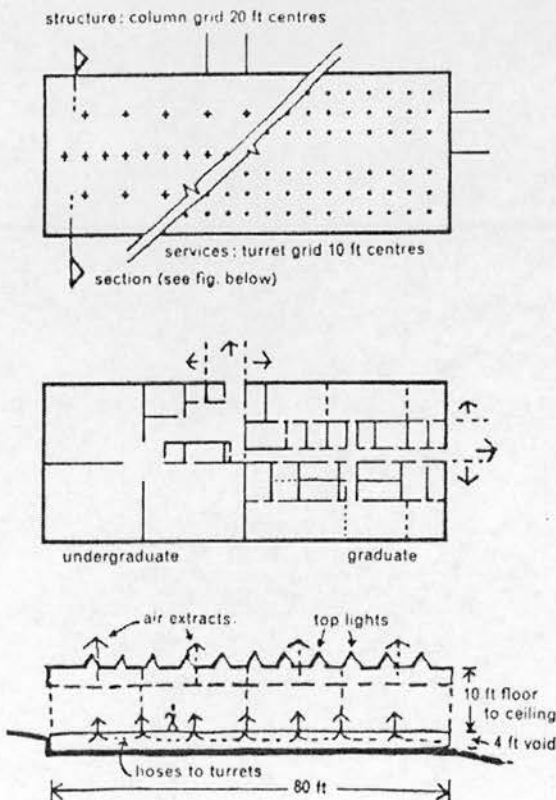
Figure 1.11 The structure of the 'molecule' of planning of York University

According to RMJM, there are three types or patterns in British universities. They are represented abstractly. From top to bottom they are: Oxbridge, Victorian universities and proposed York University. In Oxbridge, the residential colleges and teaching accommodation are clearly demarcated, but with loose connections. In Victorian universities, students and staff lived far from the university's teaching accommodation. They commuted to the university during the day time. For the plan of the University of York, the University authorities decided to bridge the gap between living and teaching by breaking faculties into fragments. In satisfying this proposed pattern, less concern was, however, paid to how the faculties worked.

In this diagram, I and II are two residential colleges. S1, S2 and S3 are three stages of the science department. All these buildings surround a central building, labelled 'H'. Connection between the three parts would be by footpath.



Figure 1.12 Development Plan showing the relationship between 'molecules' of York University. This plan shows how the different molecules would be put together and how their agglomeration would interact with the natural landscape. The large circles are colleges and science departments while the smaller ones are central buildings. The lines represent covered pedestrian passages.



Each science department would occupy one of the buildings of the rectangular form in order to allow maximum flexibility for future changes. The structural grid and the turret grid were well coordinated. During later growth of the campus, three such rectangular buildings would be grouped in a windmill form around shared facilities, such as boiler and common rooms.

Figure 1.13 Design of science buildings of York University

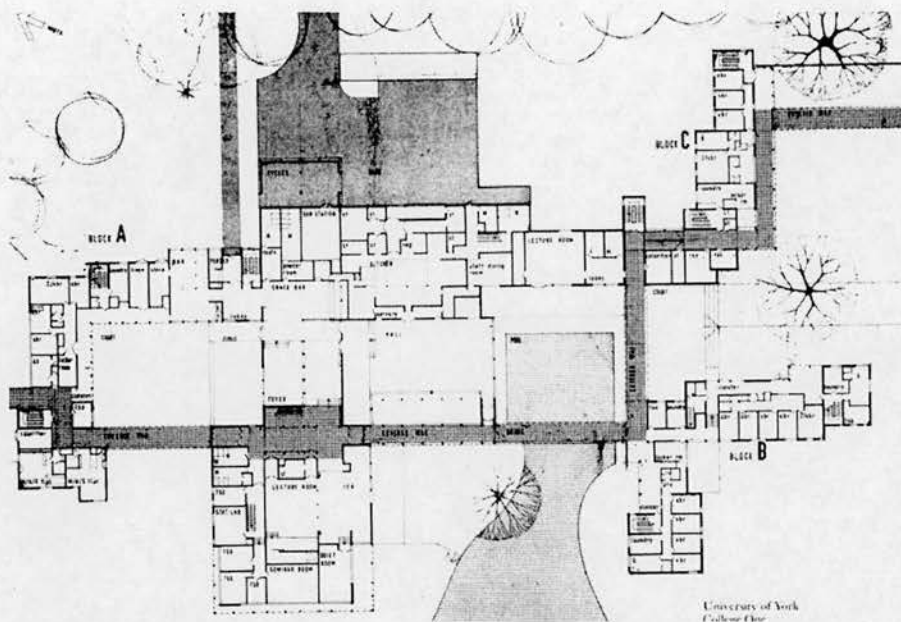


Figure 1.14 Ground floor plan of the first college of York University

This first college to be built consists of three residential wings and one public block. The main entrance to the college is through the public block which contains common rooms, lecture rooms, seminar rooms, a kitchen and a dining hall. The random arrangement of these blocks generated some interesting spaces around and within this building complex.

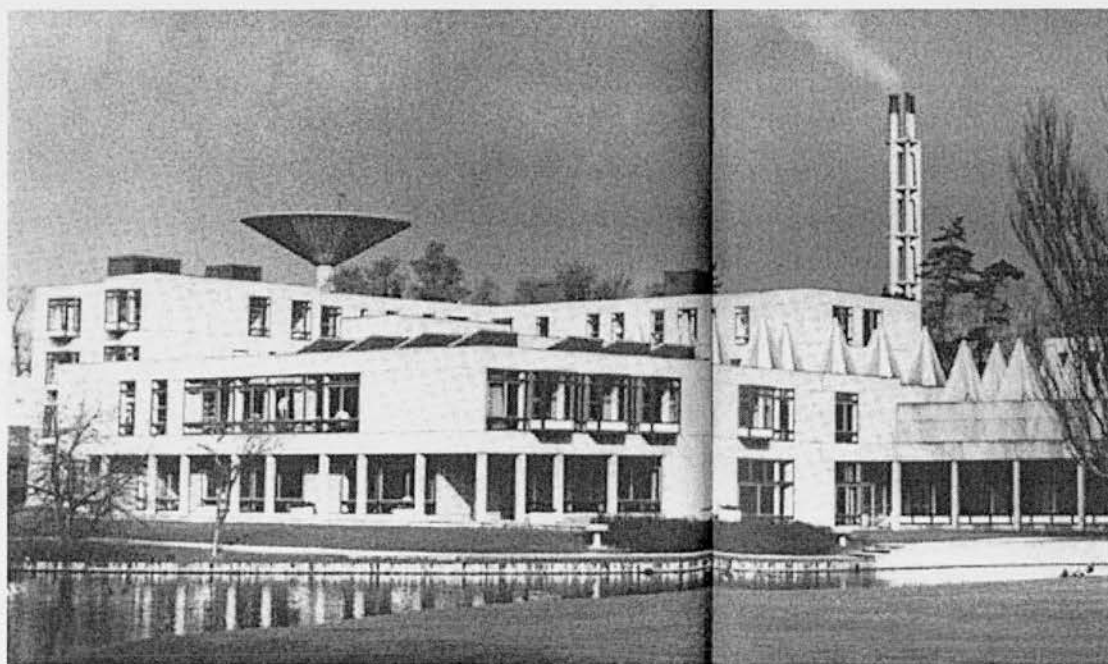
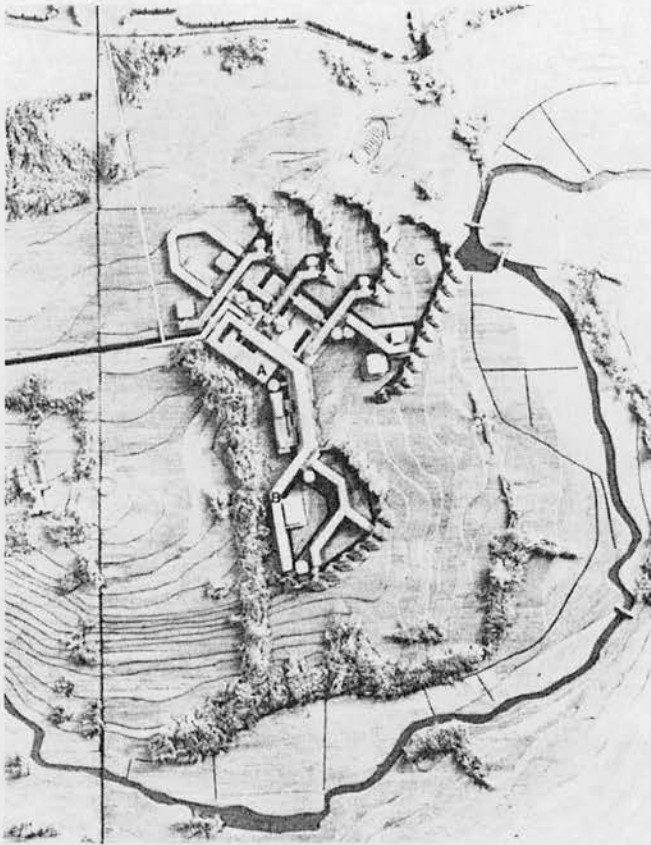


Figure 1.15 Built environment of York University

This picture shows the exterior aspect of the first college of York University. Although the plan seems to be a random configuration, construction and façade treatment of the buildings are rational, with the CLASP System applied. The placing of windows and the stone panels was determined by a module. In the middle-ground is the two-storey block of lecture rooms and seminar rooms around which is the four-storey residential building.



In this model, Block A is the university centre, Block B the teaching and research area and Block C the student residence. The unified complex appears like a vast space station landed on the field. The north-eastern part of the campus was the first to be constructed. One potential problem of this configuration is the elongated communication line for the core of the campus.

Figure 1.16 Model of University of East Anglia by Denys Lasdun

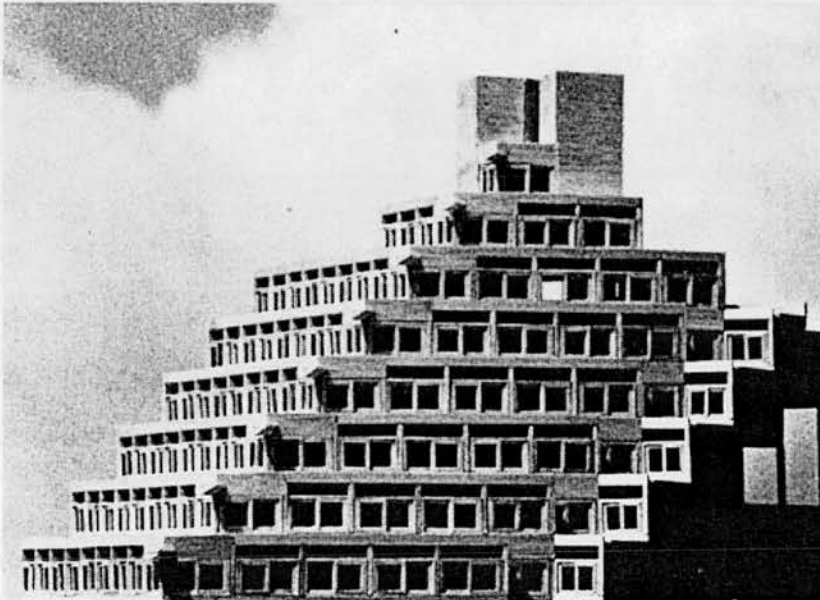


Figure 1.17 The residential blocks of the University of East Anglia

The terraced residential blocks act as a buffer between the mega-structured core of the campus and the natural landscape. The impressiveness of Lasdun's residential blocks lies in his imaginative grasp of physical character of concrete. The gutters on the corner of the block appear like the gargoyles of Gothic churches.

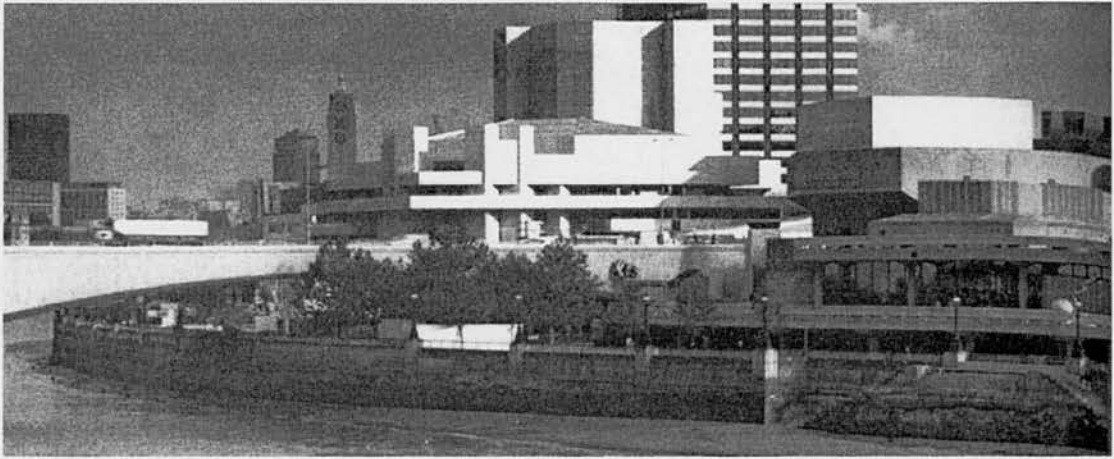


Figure 1.18 Royal National Theatre, London

Designed by Dany Lasdun, this building was opened in 1978. Like for the residential blocks at East Anglia University, Lasdun was fond of exposed concrete. Layers of cantilevered terraces around the main volume of the building allow people to see the Thames and buildings of historical interests along the river. Although it is always cited as an example of brutalist architecture, the design shows hints of classicism, in terms of shapes of the windows, the rhythm of exterior of the building. In an interview on the programme *Woman's Hour* on Radio 4 on December 29th 1976, Lasdun said he was most influenced by the emotion of Nicolas Hawksmoor and ideas of Le Corbusier.



Figure 1.19 University Village of the University of East Anglia

University Village at East Anglia was designed by Bernard Feilden. The architect used light structure for this group of buildings. Some of them were constructed in bricks or clad with bricks in order to give an appearance of permanence. Though intended to be demolished, University Village continues to be used and now accommodates students' residences.

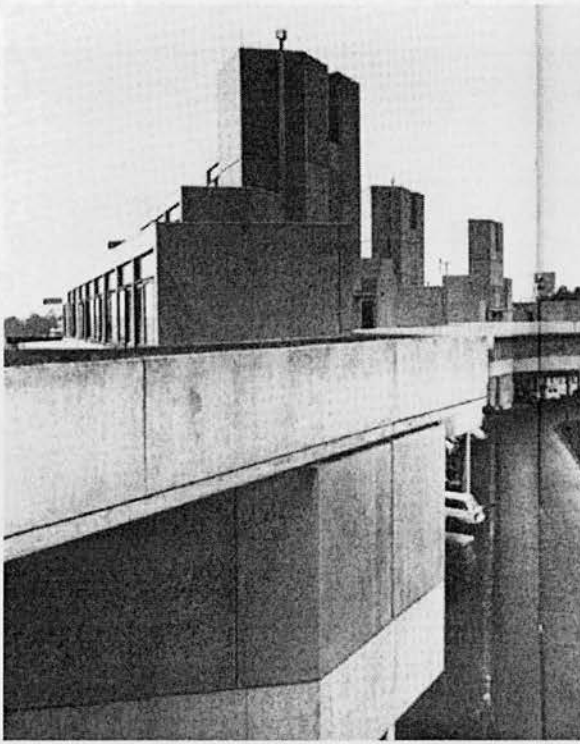


Figure 1.20 Walkway in the air of the University of East Anglia

This image illustrates the way the residential blocks are connected with other parts of the campus. The towering elements are staircase cores which gave identity to each residential unit.

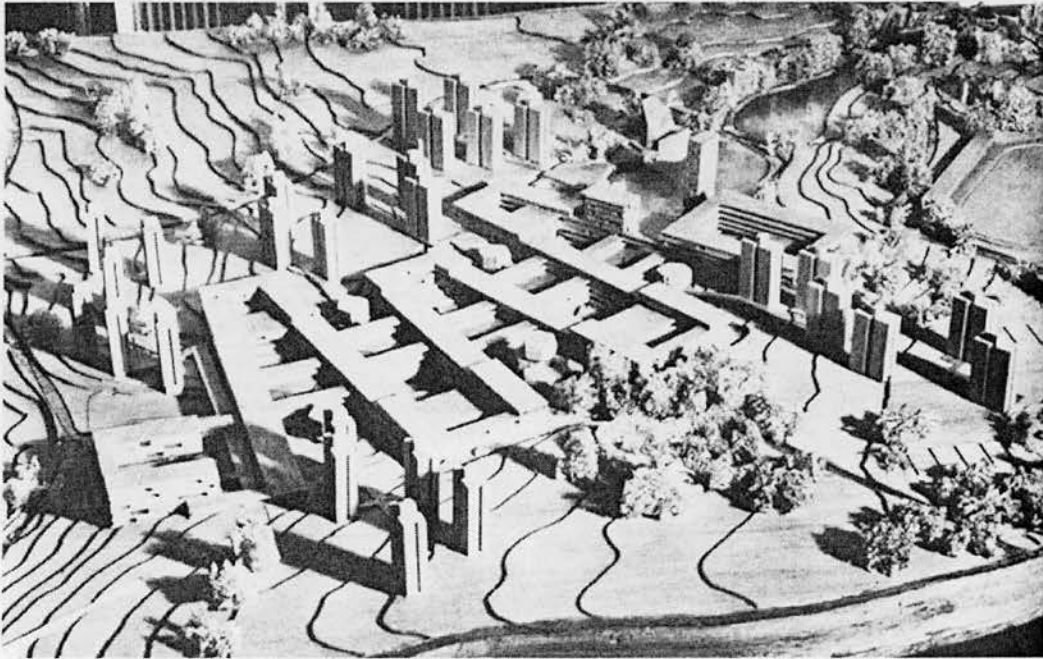


Figure 1.21 Model of Essex University

Compared with the campus at East Anglia, planning of Essex University was more closely related to the metaphor of 'urban'. Rather than being something of a horizontally linear block, the university core at Essex was given a form which mimics the urban complexity. The ambitious scheme started from the part at the upper right corner of the image.



Figure 1.22 Residential towers of the University of Essex

The photograph shows the first stage of the campus under construction with, in the background, one completed residential tower. Although there was enthusiasm for the layout of the building and the revolutionary action of building tower blocks at a rural campus, the residential towers at Essex met with criticism in the 1960s, mainly in term of functional problems and their visual impact on the natural landscape.

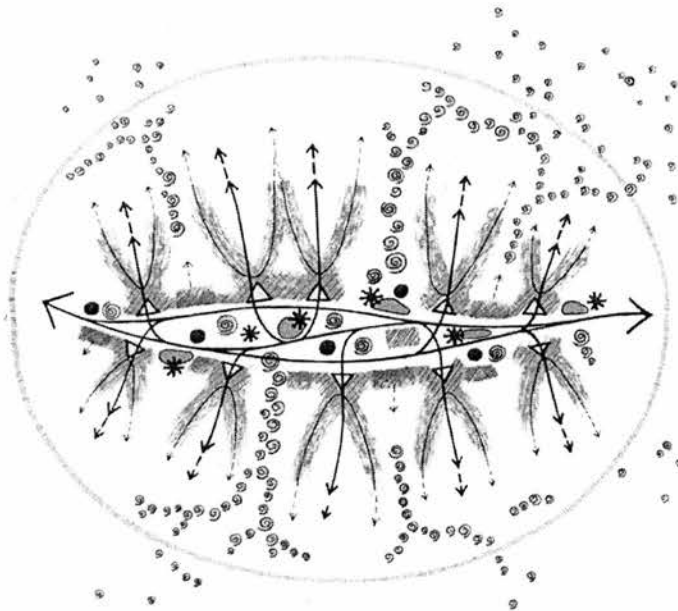


Figure 1.23 Diagram for growth pattern of Bath University by RMJM

East Anglia, Essex and Bath inaugurated the linear pattern in university-planning in Britain. Compared with the other two, planning at Bath was concerned more to allow flexibility of growth of individual departments.

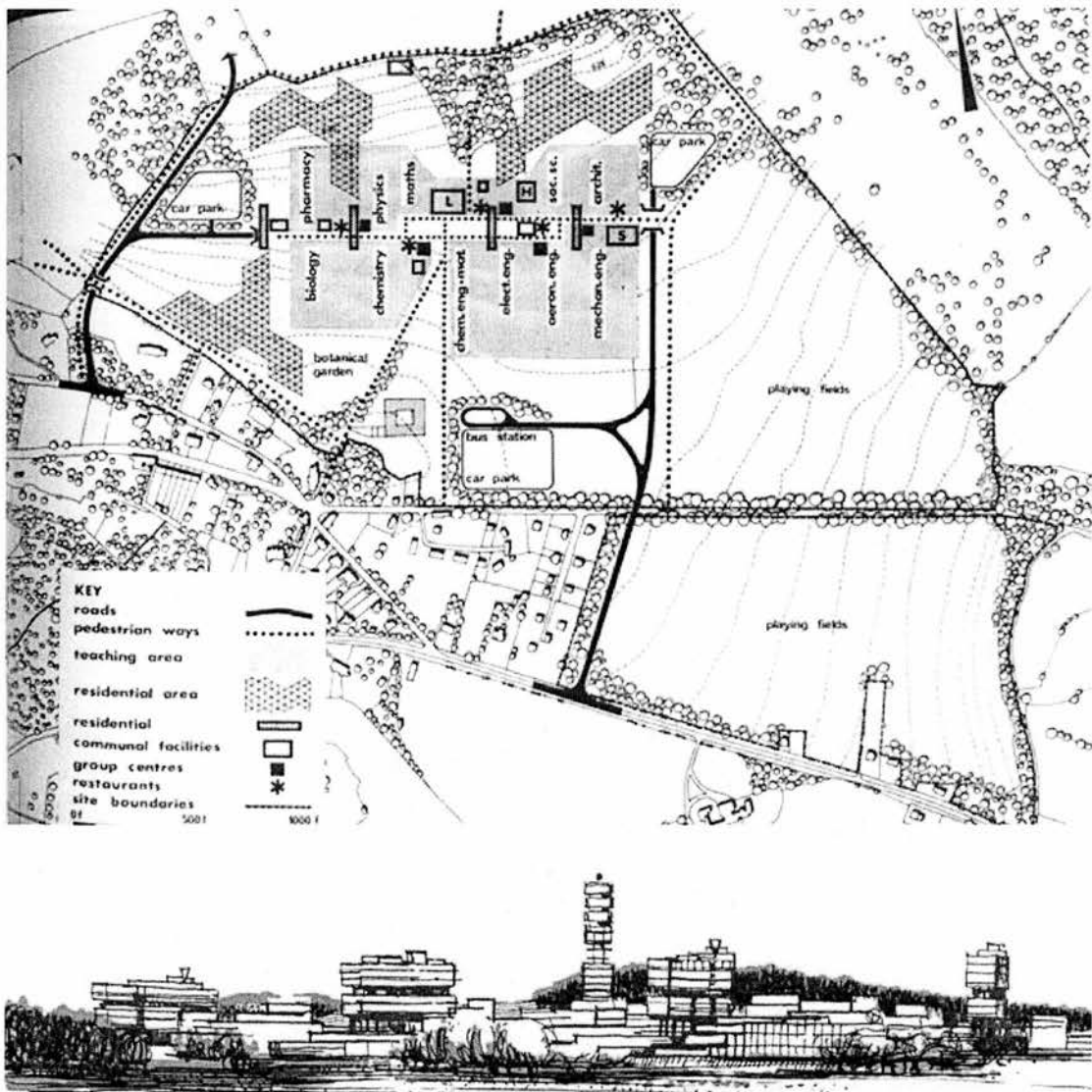


Figure 1.24 & 1.25 Development Plan of Bath University by RMJM

The main entrance to the campus is from the south of the site, where there would be a bus station and a car park. Because the site was on the ridge of a hill to the east of the city centre of Bath, the architects thought that the appearance of the campus should have a complementary effect to the natural landscape. In the plan, there were several tower blocks which would make the campus prominent from a distance. One problem with the plan was the ambiguity of the design for the peripheral residential buildings, since the university core had been in a self-contained form. The student residences, in reality, could not look like the 'bubbles' in the diagram of Figure 1.23.

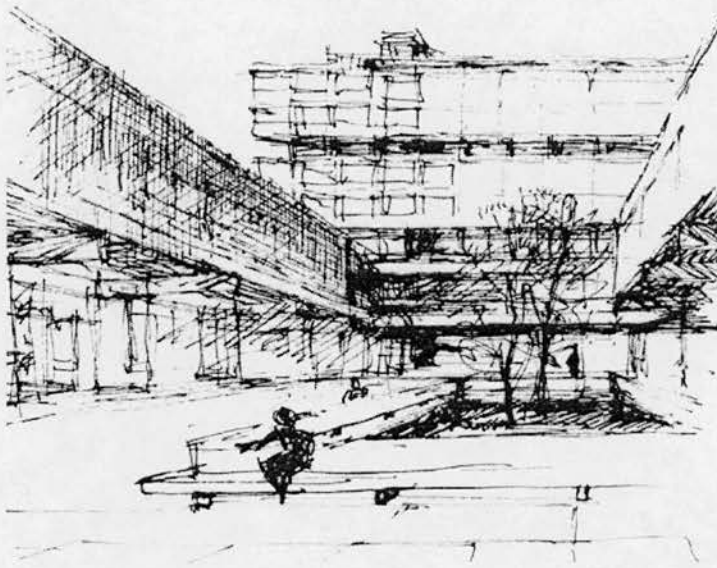
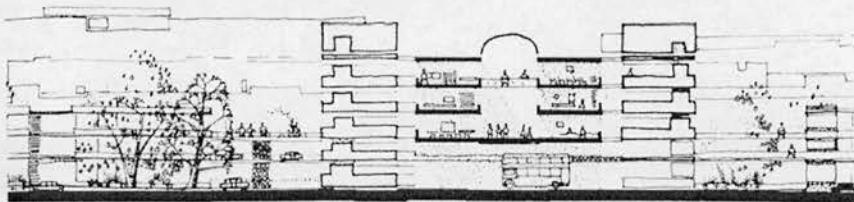


Figure 1.26 Sketch of the Parade of Bath University, RMJM

The flanking buildings accommodate teaching whilst the block spanning between the teaching accommodation is residential. Being the main thoroughfare of the campus, the Parade could not provide an ideal environment for people to sit and talk. The expected function of being the 'living room' of the campus was only partly fulfilled.



Diagrammatic section showing the principles of an arcade.

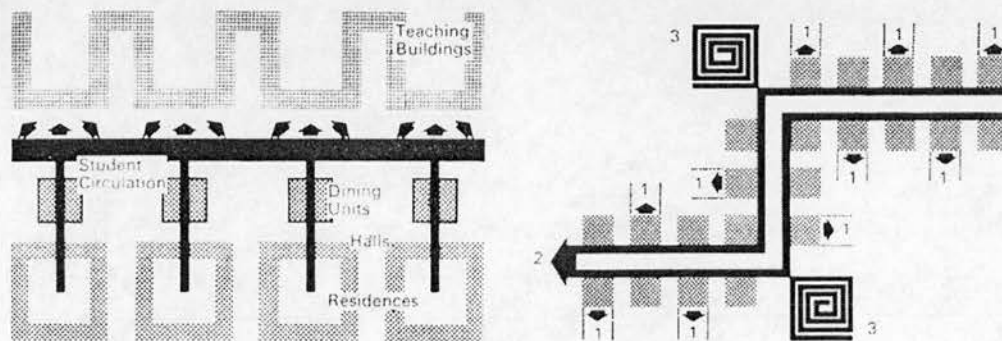


Figure 1.27 Concept drawings of the 1964 Development Plan of Warwick University

The upper sketch showed how the buses and cars would reach the hinterland of the campus, without disturbing the tranquility of the pedestrian environment. The below left image explains the relationship between students' residences and teaching accommodation, whilst the below right diagram indicates the process of future growth of each units of teaching accommodation.

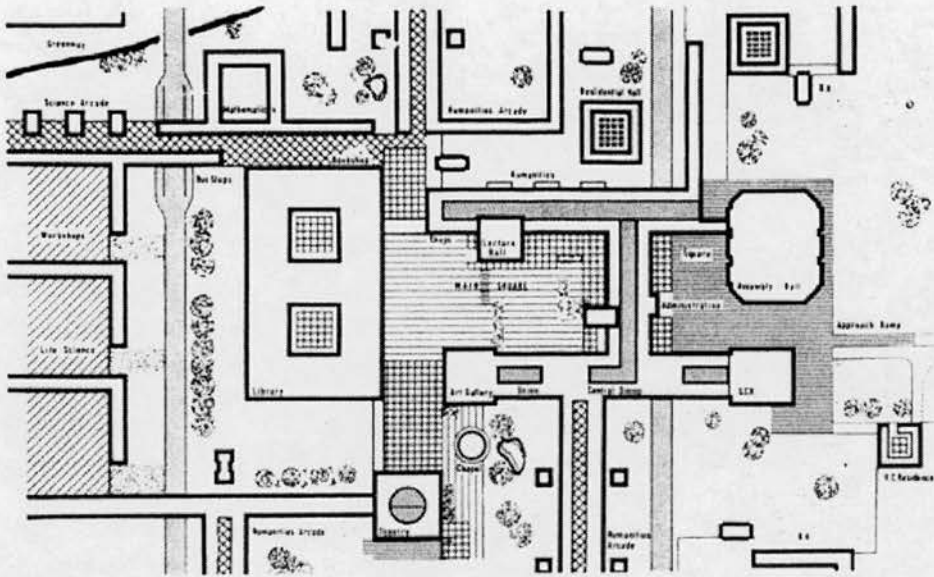


Figure 1.28 Plan of the University centre of Warwick

The University centre, in the plan, appears like a typical town centre, with squares and streets. Compared with the rationalized 'urban' core at Essex campus, the spaces of the university centre at Warwick are more randomly configured.

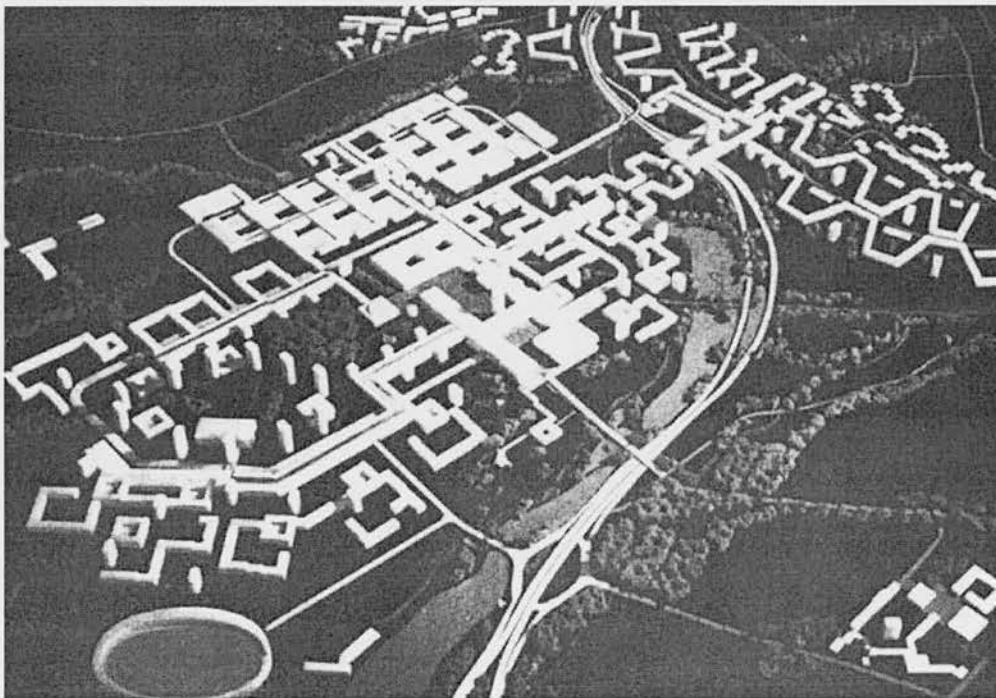


Figure 1.29 Model of the 1964 Development Plan of Warwick University

In the plan, there is a strong west-east axis. Residential blocks – at the west end of axis – are to be surrounded by trees and landscaped gardens. The boundaries of the leisure gardens are confined by teaching accommodation and public facilities. In the middle of the axis is the university centre. And at the east end of the axis is the proposed village, separated from the main campus by the ring road and woods.

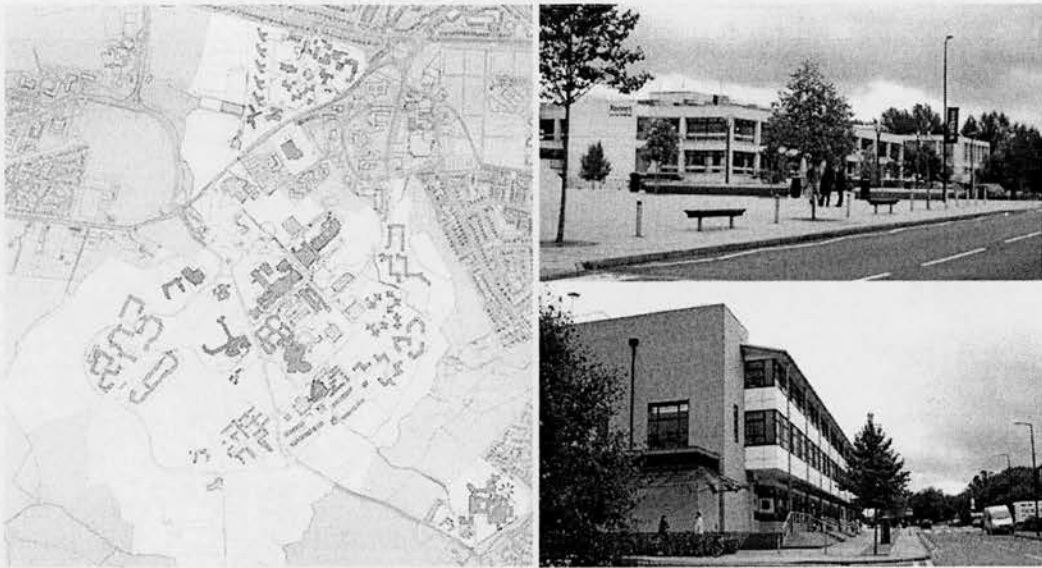


Figure 1.30 The built environment of Warwick University today

Due to the change of architects and shortage of funds, the proposed ‘urban’ campus in the 1964 Development Plan has turned into a precinct which consists of disparate buildings. The built university centre has lost the complexity and integrity envisaged in the 1964 Development Plan.

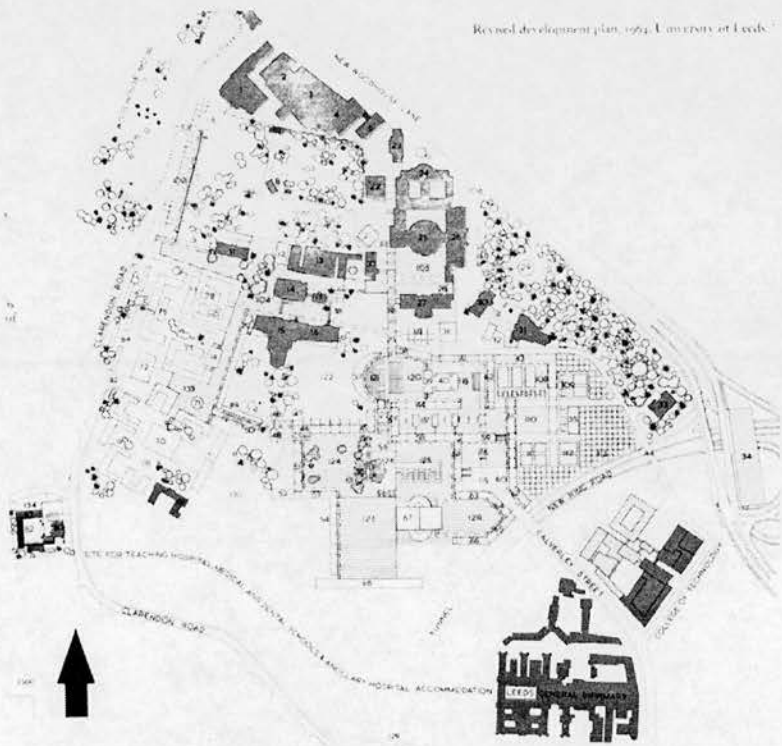


Figure 1.31 The 1963 Development Plan of Leeds University

The shadowed parts are the existing buildings of the University of Leeds before the post-war development. The proposed university centre would stretch from Parkinson Building (with a round-shaped court) to the south part of the site. Various courtyards are dotted along this main axis to provide teaching accommodation. To the west of Parkinson Building lies the public cemetery which would be flanked by new student accommodation on the west side.

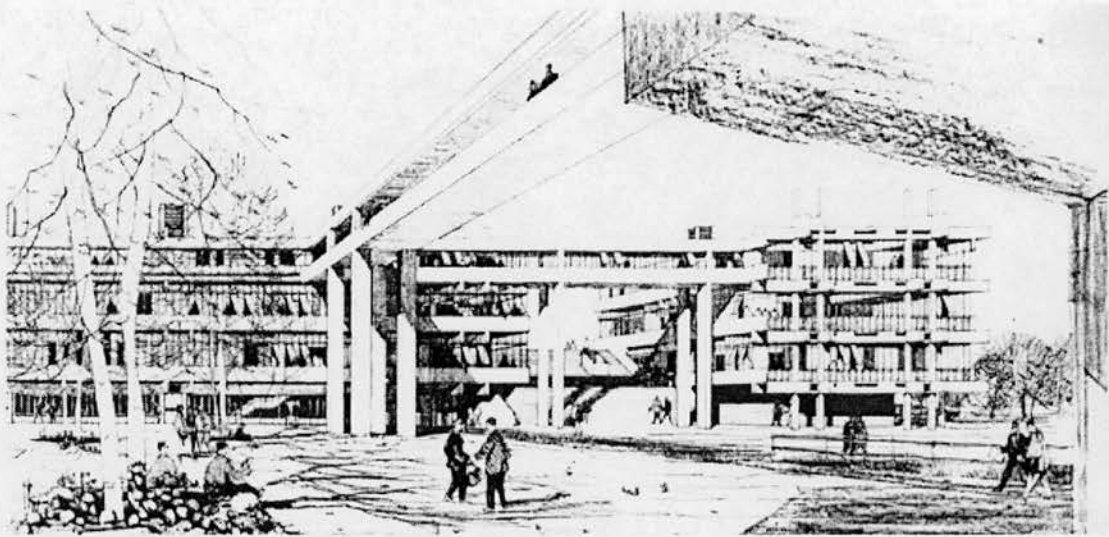


Figure 1.32 The Mathematics court of the extension of Leeds University

This court opens towards the east side, with an overhead bridge connecting the teaching accommodation on the north and south sides. The design of the surrounding buildings emphasizes horizontality. Simplicity was also a principle in design, and is apparent in the landscaping.



Figure 1.33 Roger Stevens Building, Leeds University

This lecture hall building is an impressive piece of work, in terms of the proportions and detailing of concrete and glass. The flanking pool with the fountain certainly enhances the quality of the design. The public facilities, such as the café, are on the ground floor, above which are piled the lecture theatres of various sizes. Due to the architects' love of concrete, the original furniture was all made of exposed concrete. This was heavily criticized by users for its brutalist effect, some regarding it as 'inhabitable'. The warden, who the author spoke with, said that they were eager to change the cold surfaces after the architect's death!



Figure 1.34 Aerial view of the campus of Aarhus University of Denmark, 2005



Figure 1.35 Aarhus University in the 1950s

The triangle site in the middle of the upper image is the campus of Aarhus University. The lower part of the campus is a leisure park while the upper part is the main court, surrounded by teaching accommodation and students' residences. Opposite the main court, on the east side of the main road, is the Medical School and teaching hospital of the University. Comparison of these two images shows how the University and the city of Aarhus have become amalgamated through fifty years' urbanization.



Figure 1.36 The lake of Arhus University

The Arhus campus impressed British architects in the post-war period for the the picturesque quality of the campus design. The sensitive manipulation of the relationship between the pool, trees and the topography gives the impression that the buildings grow out of the soil, rather than being imposed upon the landscape.



Figure 1.37 The leisure park of Arhus University, Denmark

Although this park is on the campus of the university, it is open to the public and is popular. In the background are the buildings of Dentistry, Geology and halls of residence of the university.

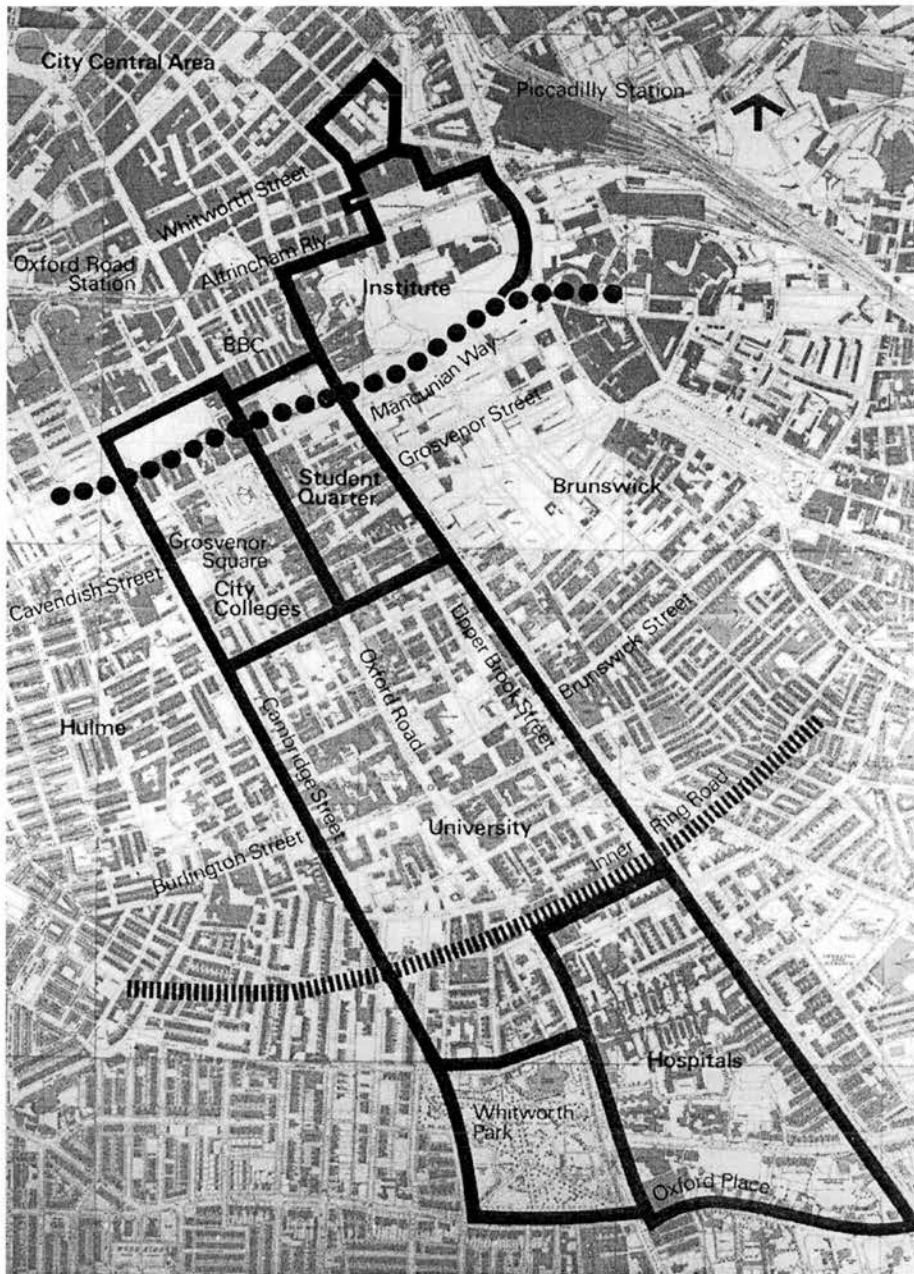


Figure 1.38 The site of the Manchester Education Precinct, 1960s

The black lines demarcate the boundaries of the Education Precinct. The Institute is on the north-east site of the Precinct while the City College occupies the north-west corner. The University of Manchester lies in the middle of the precinct, bordered by the Hospital at the south. The two dotted lines indicate the possible ring roads to be constructed. The north one was constructed whilst the south one was cancelled due to the University's criticism of its negative impacts on the environment of the Education Precinct.

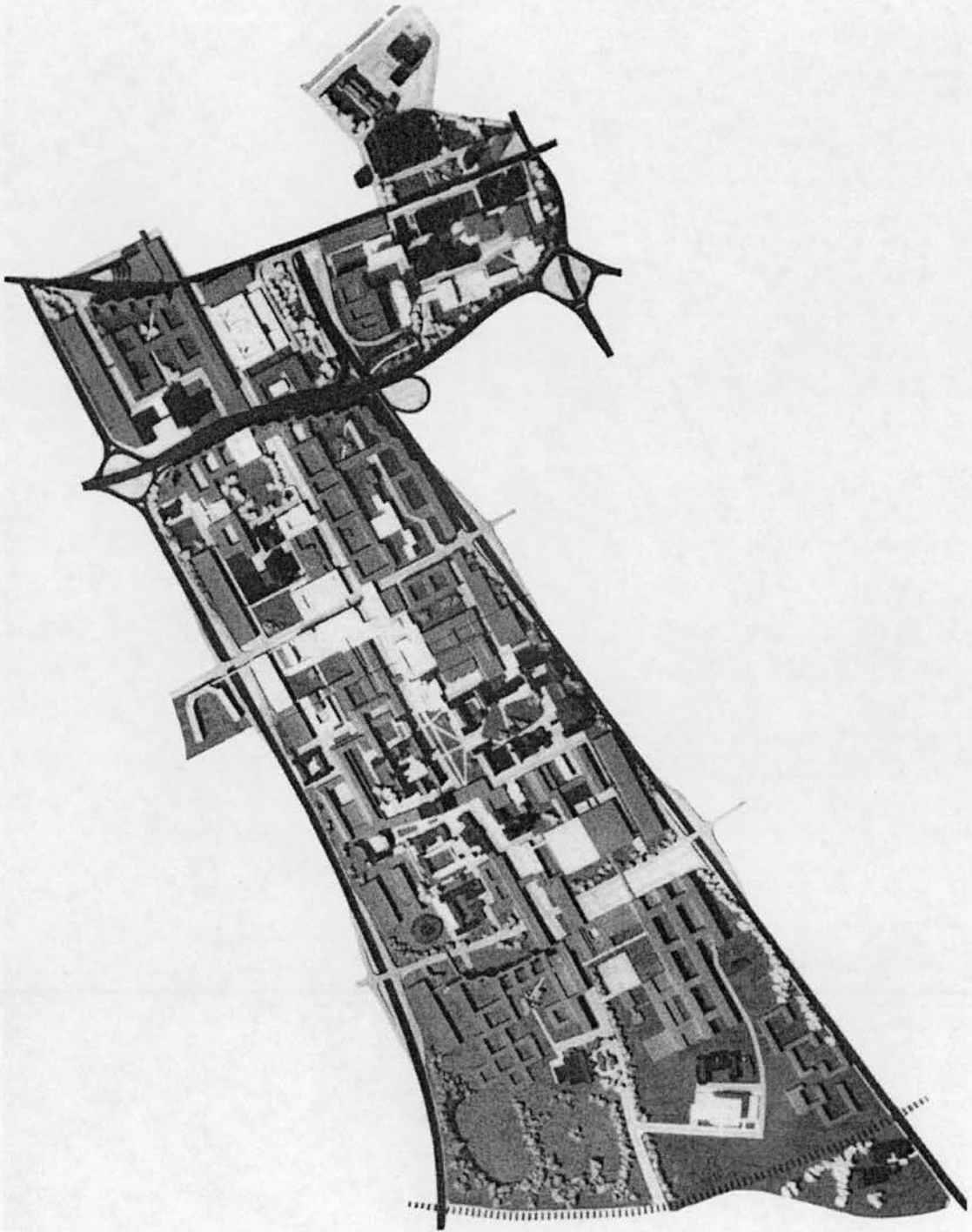


Figure 1.39 Development Plan of the Manchester Education Precinct

The motif of courtyard is apparent in this plan. It seems that the courtyard is regarded by the planner as the ideal type of building for a university within an urban environment. However, compared with the suburban campuses and Leeds University, the planning at Manchester does not possess a coherent idea and three-dimensional control of development. The landscape was to have paramount importance in controlling future growth of the Manchester Education Precinct. However, with hindsight, it is possible to see that it failed to exert sufficient control over the development. The problem can be recognized by comparing this plan with the built fabric of the University today, in Figure 1.41.

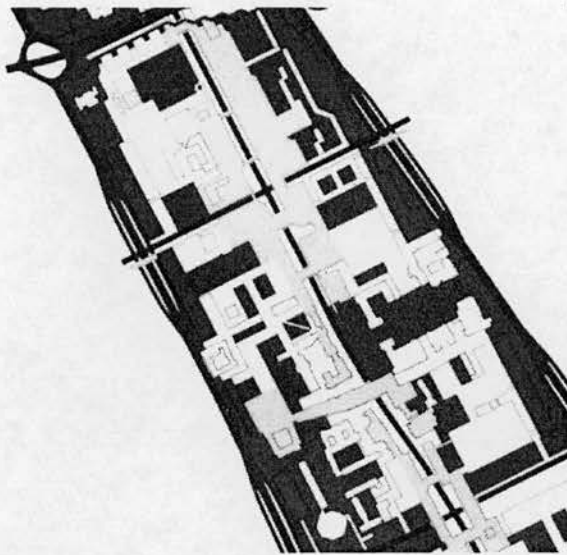


Figure 1.40 Detailed plan of pedestrian connections along Oxford Road, Manchester University
The shaded buildings were for communal, public or joint-user purposes, so that the pedestrian zone would be a coherent area along Oxford Road. At least three overhead bridges were proposed in each block in order to facilitate more convenient connections between two sides of the road.



Figure 1.41 The air view of Manchester University
This aerial view shows clearly the drawbacks of relying for control of development on landscape design for the campus of Manchester University. Buildings are treated as self-contained units, incapable of coming together into a coherent whole. The streetscape of Oxford Road, the main artery, lacks coherence in planning and design.



Figure 1.42 Air view of Stirling University

Stirling University, established in 1967 as the last new university of the Robbins Era, is placed in a delightful rural site to the north of Stirling. The campus is approached from the road to its west. A large sports field in the lower part of the image serves to screen the noise from the road. At the main campus, to left, is the residential village while to right is the teaching accommodation. The elements are connected by a bridge over the lake. The design of the buildings at Stirling University emphasize extreme horizontality with the height not exceeding two or three storeys.

Illustrations to Chapter Two

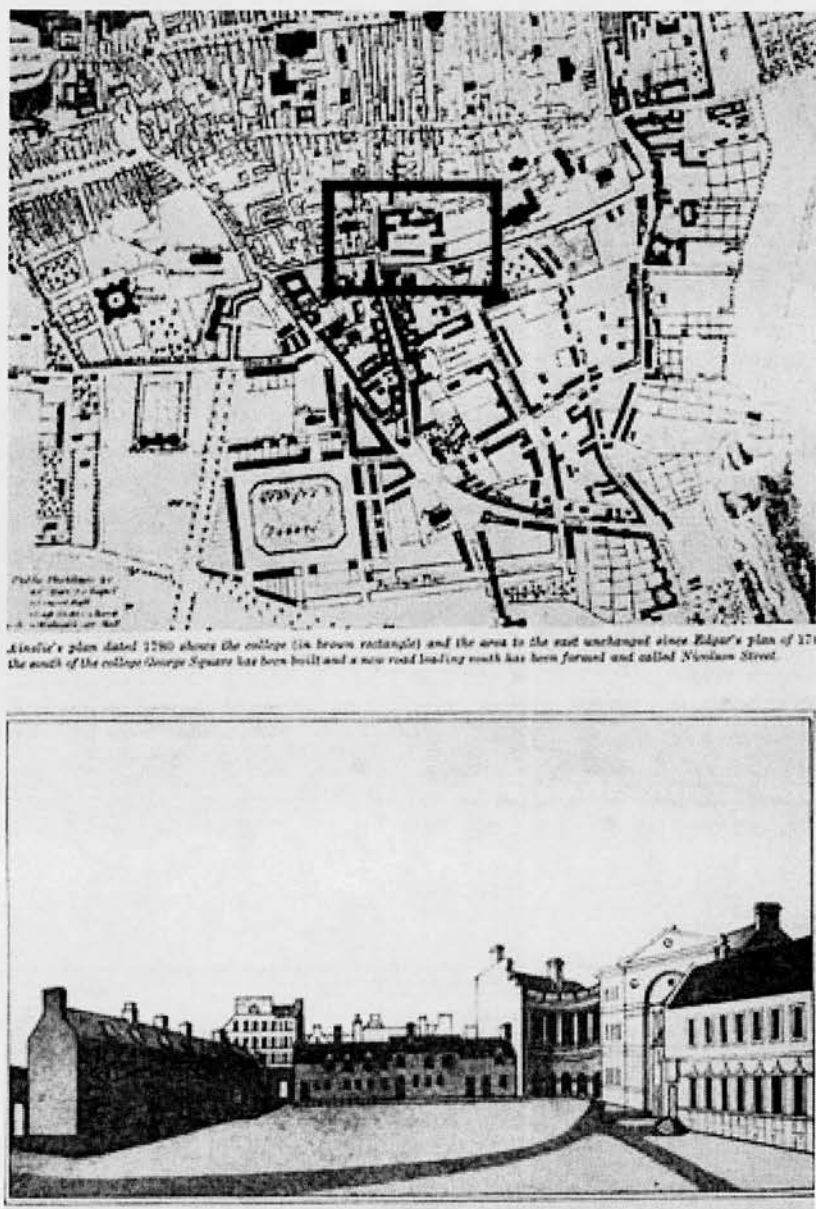


Figure 2.1 Location of the University of Edinburgh and the first phase of development of Old College

The image below is of the main courtyard of the University of Edinburgh on the site of Kirk-of-field in the late eighteenth century when Robert Adam's design for Old College was in the early stages of execution. The map (top) indicates the relationship between the university precinct and the Town in the 1770s when the University was located beside the city wall. From the gate of the University, an avenue led southward to the newly-reclaimed land within which George Square was an important residential area.



Figure 2.2 Aerial view of the New Town of Edinburgh

This image exemplifies what Thomas Shepherd said in 1829: 'A wild, irregular, and irriguous surface, deep valleys... are the component parts of the landscape, whilst high, solid, and spacious houses, in narrow streets, constitute the Old Town; and large squares, terraces, and wide street, with houses and public buildings of enriched architecture, characterize the New Town'.¹

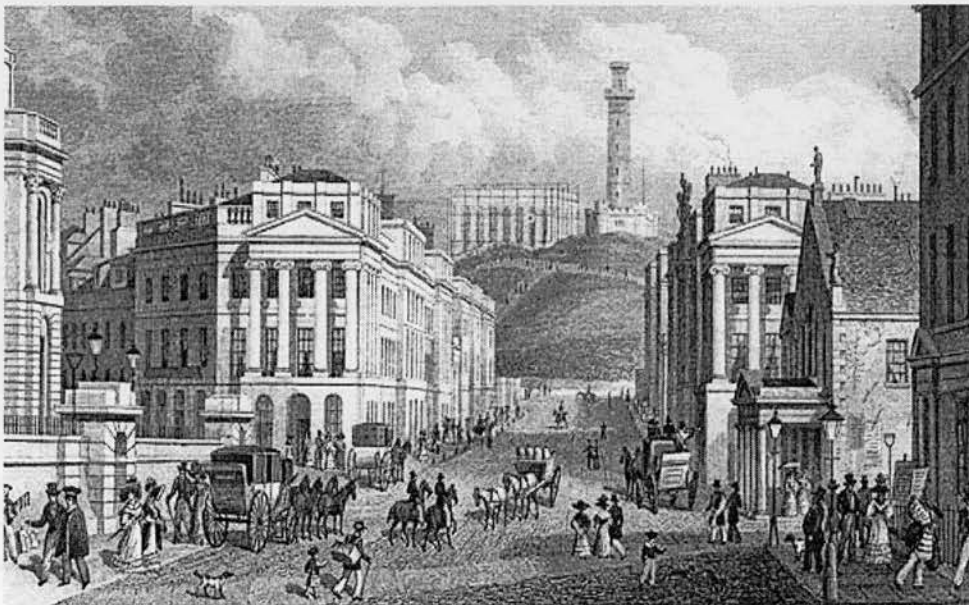
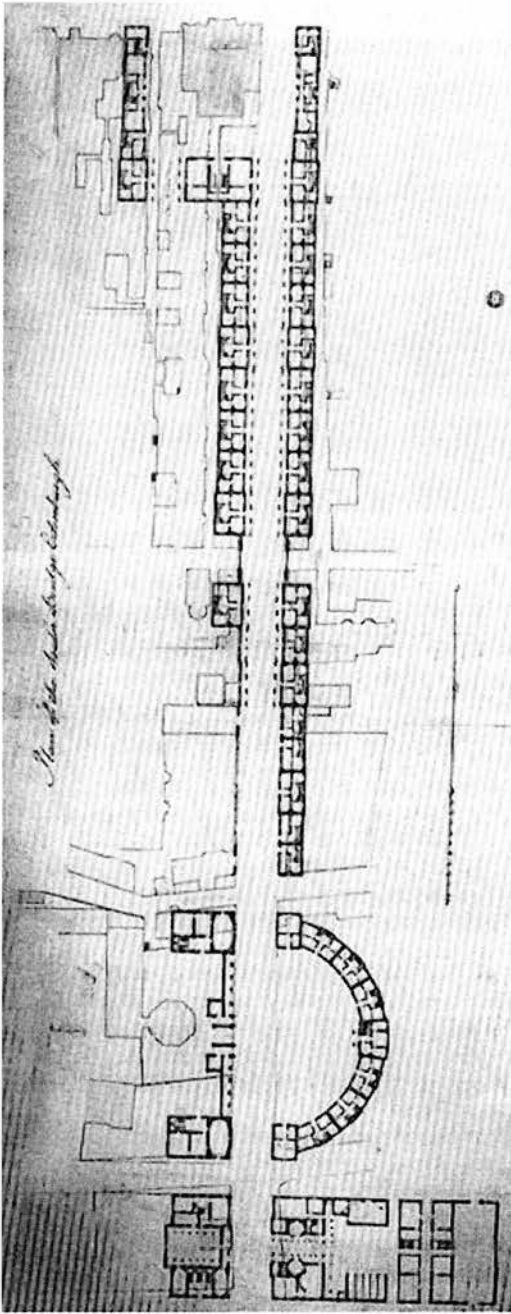


Figure 2.3 Engraving of Waterloo Place of the New Town

The Calton Hill, in the background, was likened to the Athenian Acropolis. On the top of the hill, a Parthenon-like Memorial to the fallen of the Napoleonic Wars was begun but was left unfinished for want of funds.

¹ Thomas H. Shepherd, *Modern Athens! Displayed in series of views* (London: Jones & Co., 1829), p. 3.



Before the eighteenth century, the connection between the High Street and surrounding areas was through the narrow closes. When North Bridge was built between 1767 and 1772 to connect the Old Town and the New Town, a proposal was made to solve the corresponding problem of uneasy communication with the southern part of the City. This project was called South Bridge. Robert Adam proposed this plan for South Bridge in 1785. At its northern end, a square was proposed beside the Tron Kirk while towards the southern end, a crescent would be formed opposite the site of the University. He proposed colonnaded porticos and pediments above the entrances of the flanking buildings. These designs were to give this new street a fine classical character.

Figure 2.4 Proposal for South Bridge by Robert Adam, 1785



The classical entrance façade with its dome is monumental in form and materials. It was completed according to Adam's original design except for the dome, which was built by Robert Rowan Anderson in the 1880s. The present dome is bigger than that proposed in Adam's design.

Figure 2.5 The entrance façade of the Old College

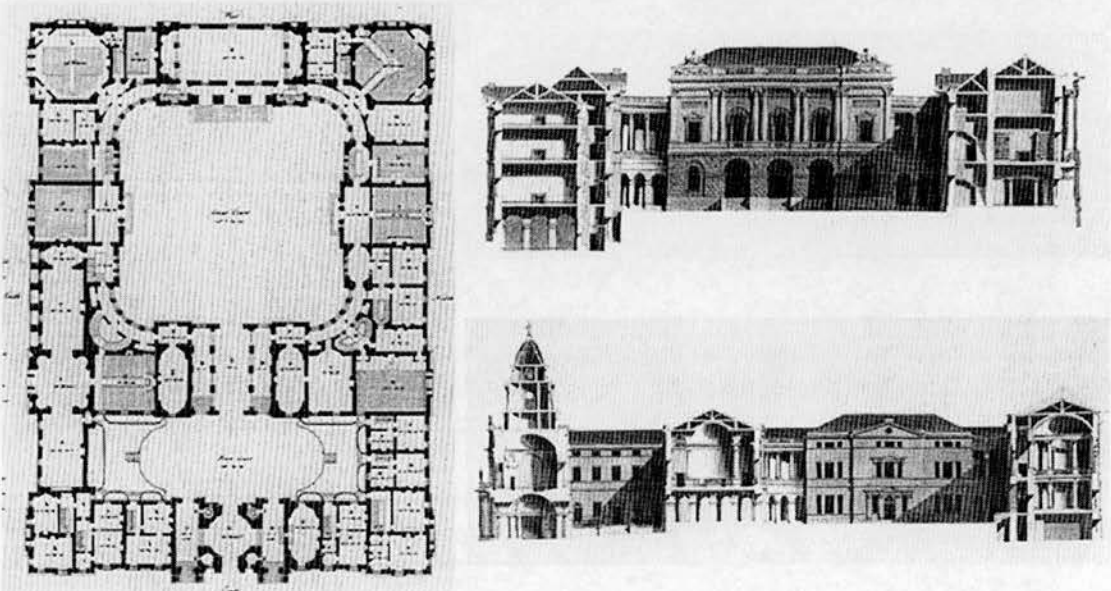


Figure 2.6 Plan and sections for the Old College by Robert Adam

Adam's proposal for the dual-court layout of Old College had two main purposes. Firstly, the staged procession from the South Bridge Street to the main court would be ceremonial. Secondly, the layout would allow the main court to be flat and of a perfect square shape, despite the sloping terrain of the site as a whole.



Figure 2.7 Court of the Old College

In the eighteenth century, it was hard to find, within the hectic city like Edinburgh, a more tranquil environment than the court of the Old College. The value of the layout of the Old College lies in that it maintained a desirable environment for higher education while retaining connections between the academic and the local communities. The court of the Old College continued to serve as the University's place for public assembly, ceremony and debates until the post-war period when this space became a car park and lost its vitality.

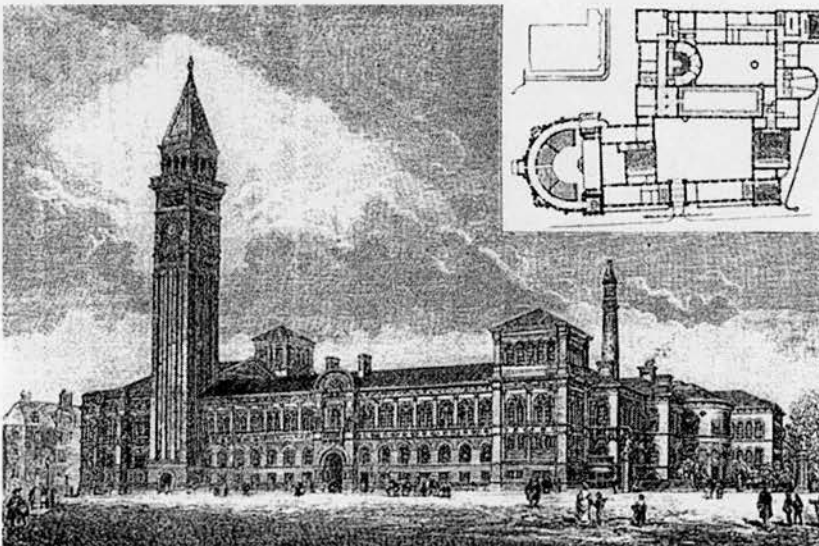


Figure 2.8 Proposals for a Medical School building by Robert Rowand Anderson, 1876

The soaring campanile and the slender chimney dramatise the silhouette of the Medical School building as another monument indicating the importance of the University to the City.



Figure 2.9 King's Buildings of the University of Edinburgh in the 1950s



Figure 2.10 Ashworth Building, the Department of Zoology, King's Buildings, 1927

The Science departments of the University were set in a suburban of Edinburgh where they were surrounded by low density housing. In the top image, the buildings, from left to right, are Chemistry, Geology, Zoology and Engineering. Though some extensions were made to Geology and Engineering in the 1950s, the major expansion of King's Buildings site started in the 1960s. Around the 1940s, there was no formal or social interaction between King's Buildings and the surrounding community.



Figure 2.11 New College at the Mound, Edinburgh Old Town

Designed in 1844, by William H. Playfair, the architect to the Old College, this building is a prominent landmark of the City of Edinburgh. New College marks a point of transition between the two parts of the city, its formality of composition contrasting with its rugged Gothic style. The Faculty of Divinity of the University of Edinburgh moved into this building in 1937.



When some of the science departments moved to the Mayfield Road in the 1920s, the University of Edinburgh had acquired a satellite to its central area around Old College. In the central area itself, there was a certain amount of dispersion of departments. The Faculty of Divinity was accommodated in the New College, near the Castle. The fact of the two sites was a powerful determining factor in the University's development of policies for expansion after the Second World War.

Figure 2.12 Map showing the general situation of the University of Edinburgh in the 1920s

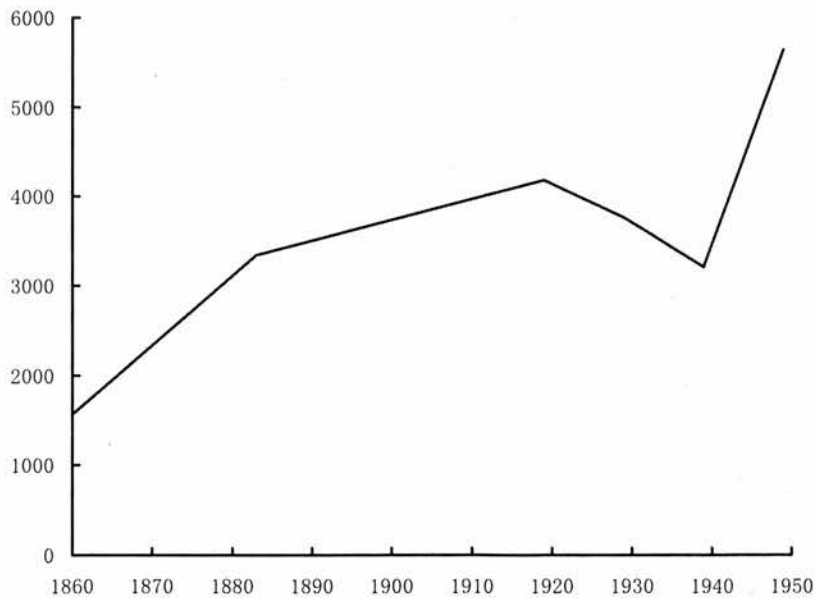
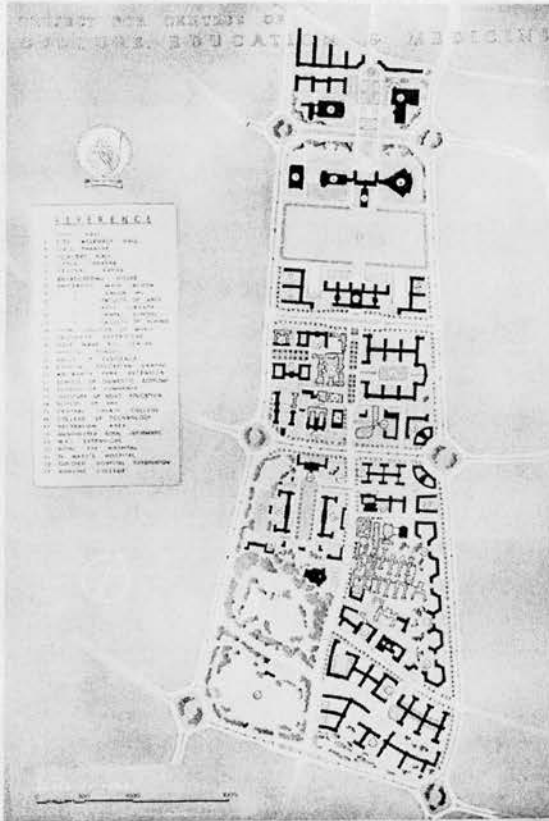


Diagram 1: Full-time student numbers from 1860s to 1950, University of Edinburgh



As part of the plan for the City of Manchester, a multi-centre was proposed, including the University of Manchester, the Royal College of Music, the Manchester Royal Infirmary and other surgical hospitals nearby. The site was a run-down area at the southern end of Manchester City Centre. The aim of this proposal was to generate ‘the acropolis in which the intellectual and aesthetical life of the city and its environs should culminate, and from which enlightenment may be diffused throughout the civic structure’.¹

1. Rowland Nicholas, *City of Manchester Plan* (Norwich: the Manchester Corporation, 1945), p. 99.

Figure 3.2 Plan for the Manchester Centre of Culture, Education and Medicine, 1945

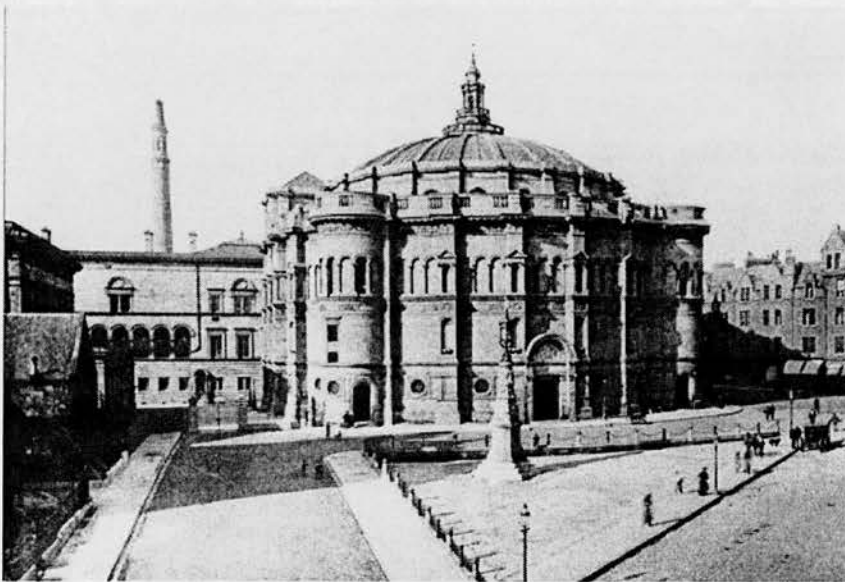


Figure 3.3 The square in front of the McEwan Hall before the 1980s’ reconfiguration

This triangular-shaped square was formed in the late 19th century. It was bounded by the McEwan Hall, the Union of the University of Edinburgh and the Bristo area. Mears considered that this square should provide a better setting for education. So, in the 1931 College Mile plan, Mears proposed to replace the houses of the Bristo area with a new library and to change this area into an educational one. Later, in the 1970s, Mears’ idea gave way to a new approach which reshaped the square into a rectangular pedestrian-square by closing the triangular Bristo Street.

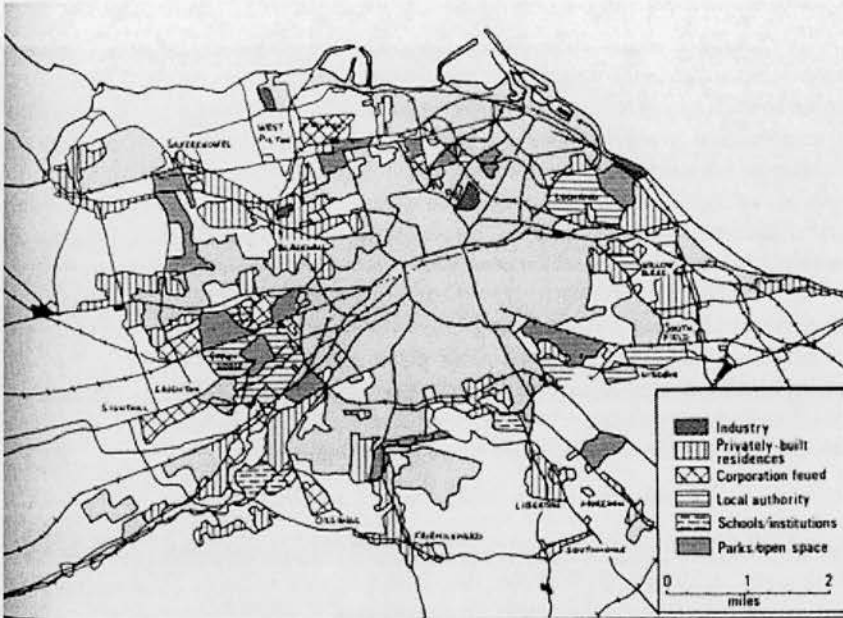


Figure 3.4 The development of the City of Edinburgh between 1919 and 1939

From this image, it can be seen that hatched areas of inter-war the development of industry, housing, educational facilities and administration, were concentrated on the outskirts of the City of Edinburgh. Little development and improvement had been undertaken within the City during this period. A tendency of suburbanisation prevailed during this period.

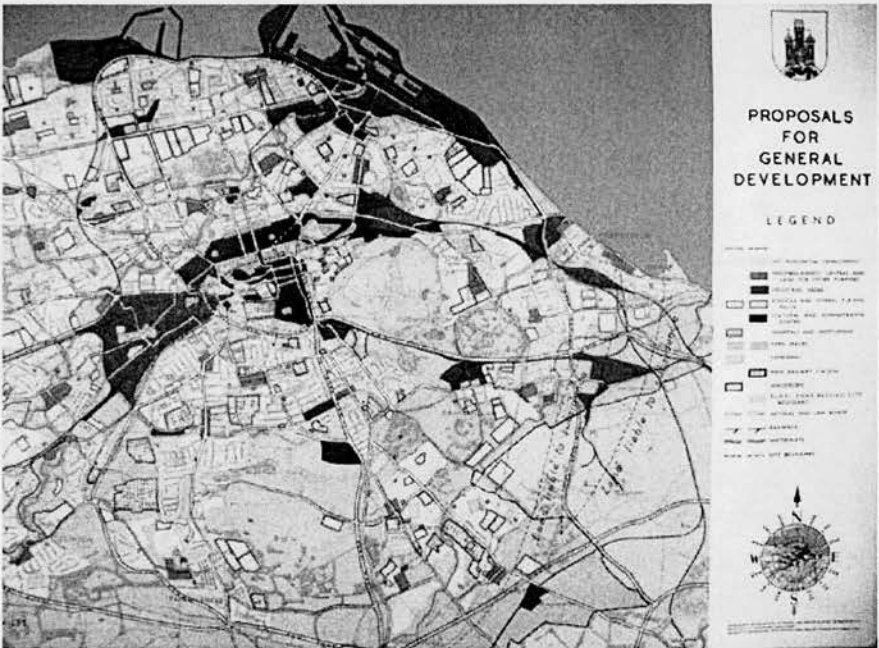


Figure 3.5 Zoning proposal of the Abercrombie Plan, 1949

In Abercrombie’s zoning proposal, industrial development would be kept out of the city centre. The major industrial developments, around the city centre, would be placed at the Haymarket, to the east of Calton Hill and in Leith. The New Town, Old Town and South Side were allocated for cultural and administration purposes while other parts of the city centre were designated for houses and shops.

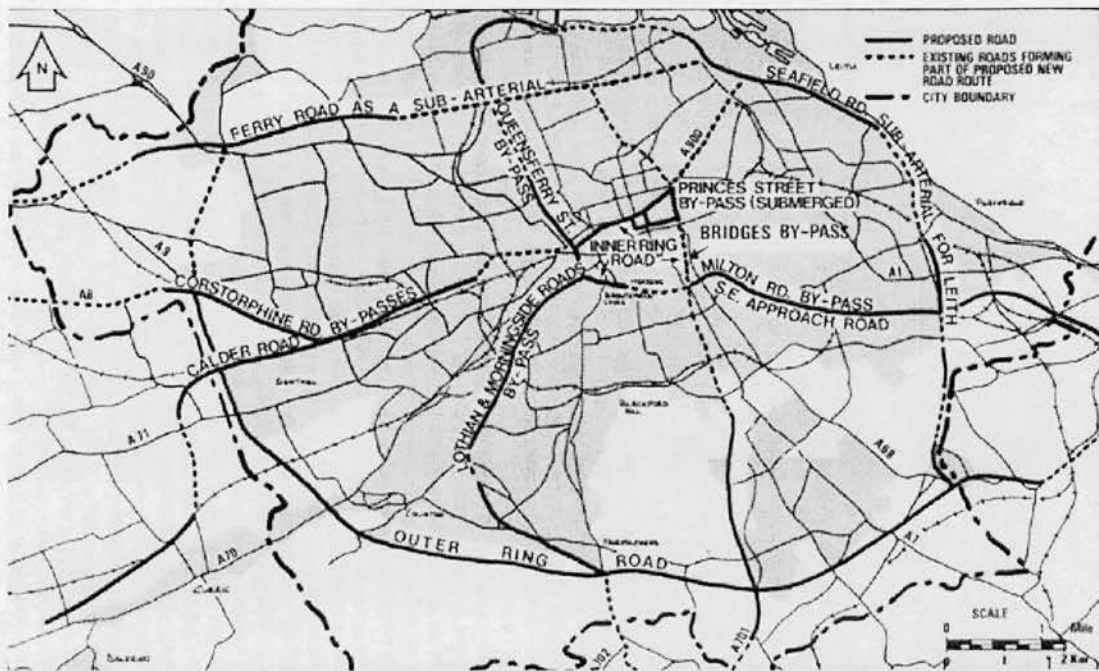


Figure 3.6 The road proposal of the Abercrombie Plan, 1949

To relieve traffic pressure on the existing roads of the city centre, Abercrombie proposed an inner ring-road, of Princes Street at the north, a Bridges by-Pass on the east, Melville Drive on the south and Tollcross on the west. Four by-Passes were to connect the inner ring road with the outer ring road. This proposal was heavily criticised for its impact on the urban environment.



Figure 3.7 Abercrombie's proposal for Princes Street reconstruction, 1949

During the late nineteenth and the twentieth century, Princes Street suffered from uncontrolled developments. It was regarded by some critics as 'one of the most chaotically tasteless streets in the United Kingdom'. Abercrombie tried to bring order to this chaotic street by introducing colonnades at the ground level and first-floor balconies to the street fronts. However, Abercrombie did not give a clear idea as to what would remain and what would be demolished in Princes Street.

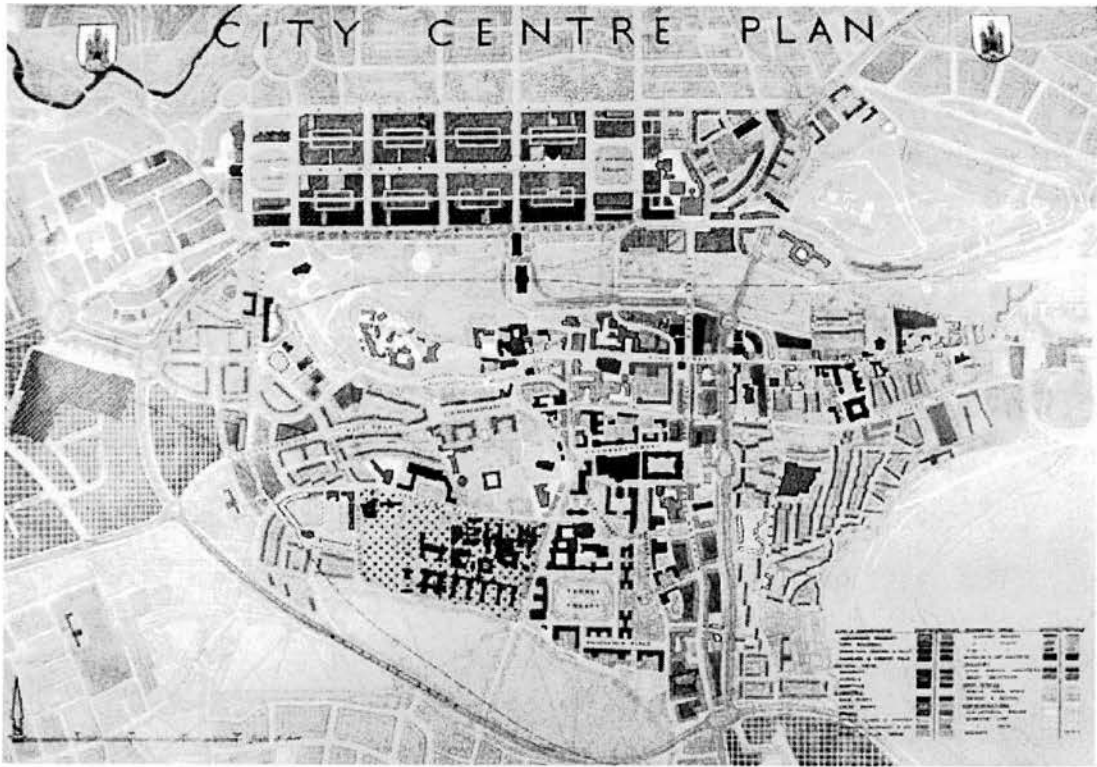


Figure 3.8 City Centre Plan by Abercrombie, 1949

According to his zoning proposal, Patrick Abercrombie proposed a plan for the City Centre incorporating Charles Holden’s plan for the University. But the whole plan for the city centre lacked a clear idea of urban form. On either side of the proposed Bridge By-Pass, there were two different worlds: densely-planned cultural and administration facilities on the one, and semi-suburban residential blocks on the other.

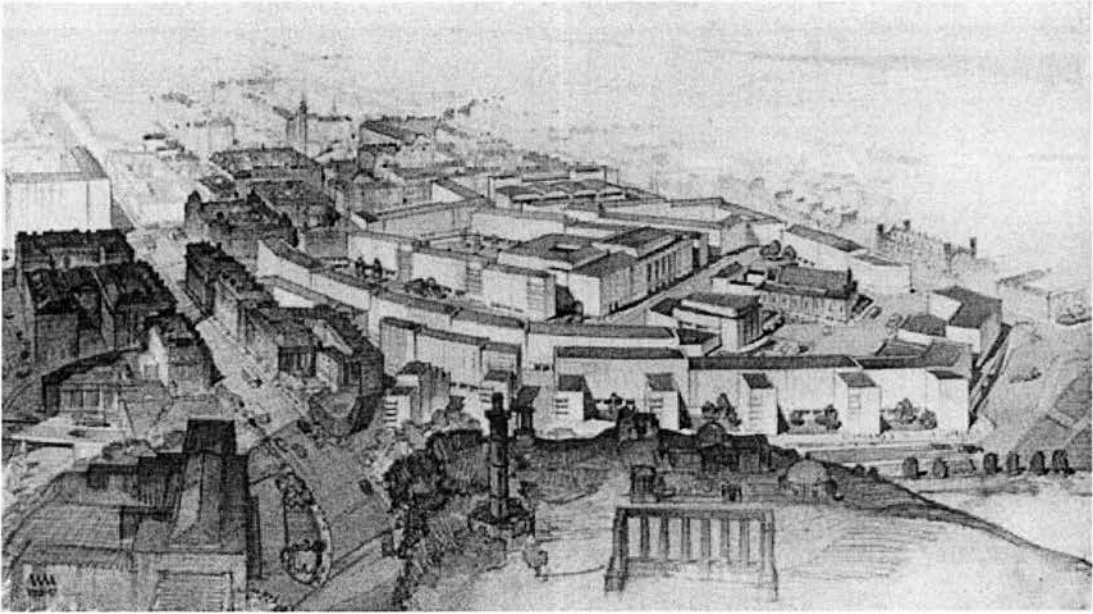


Figure 3.9 Reconstruction of St James Square into a Festival Centre, 1949

Compared with his City Centre Plan, Abercrombie's proposal for the Festival Centre was more coherent in terms of urban form. Built by James Craig between 1775 and 1790, St James Square was 'a housing development with solid stone tenements and an ornamental garden and was the city's first attempt at a unified terrace design'.¹ In the early 20th century, the properties in the Square became dilapidated and blighted by hygiene problems, and were categorized as a slum. Abercrombie proposed to replace the old tenements with a new Festival theatre. This aim was to strengthen the cultural focus of the east end of the New Town. It is widely accepted that Abercrombie's proposal was much better than the St James Shopping Centre which was later built on this site in 1970.

¹ Hamish Coghill, *Lost Edinburgh, Edinburgh's lost architecture heritage* (Edinburgh: Birlinn, 2005), p. 176.

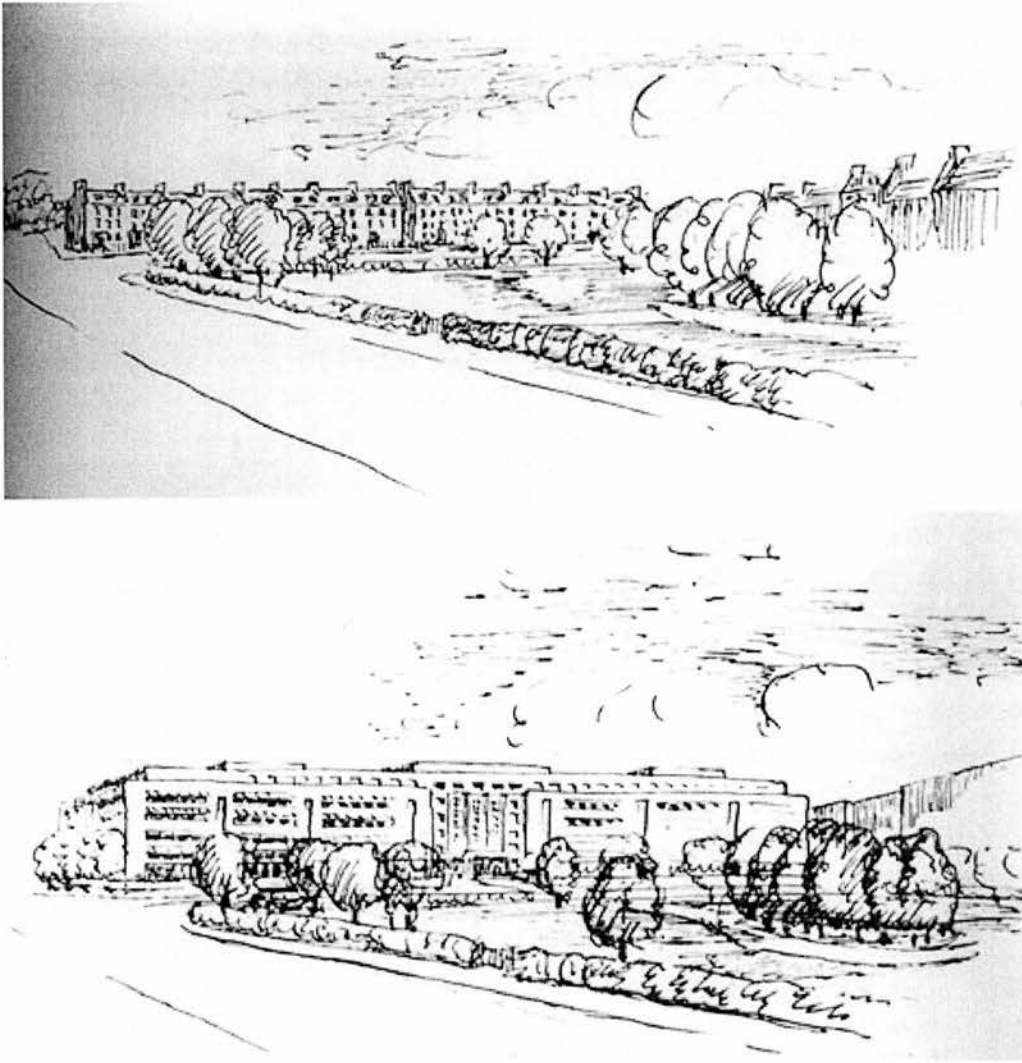


Figure 3.10 Architectural analysis of George Square by Abercrombie

The upper sketch shows the existing situation of George Square – the proportion of the height of the houses to the width of the garden. The lower sketch is Abercrombie's suggestion for larger-scaled buildings on the four sides. Abercrombie's idea of architectural proportion, was rejected by the conservationists for whom what was most important were the historical associations of the extant buildings.

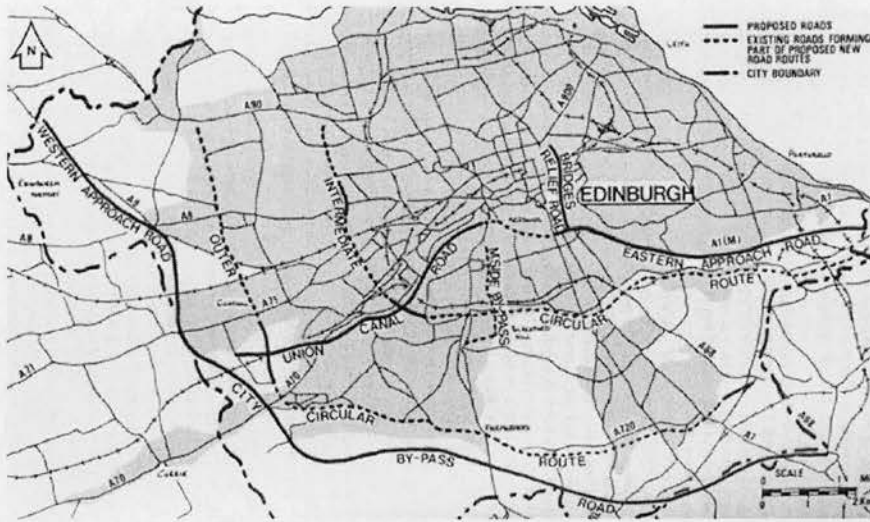
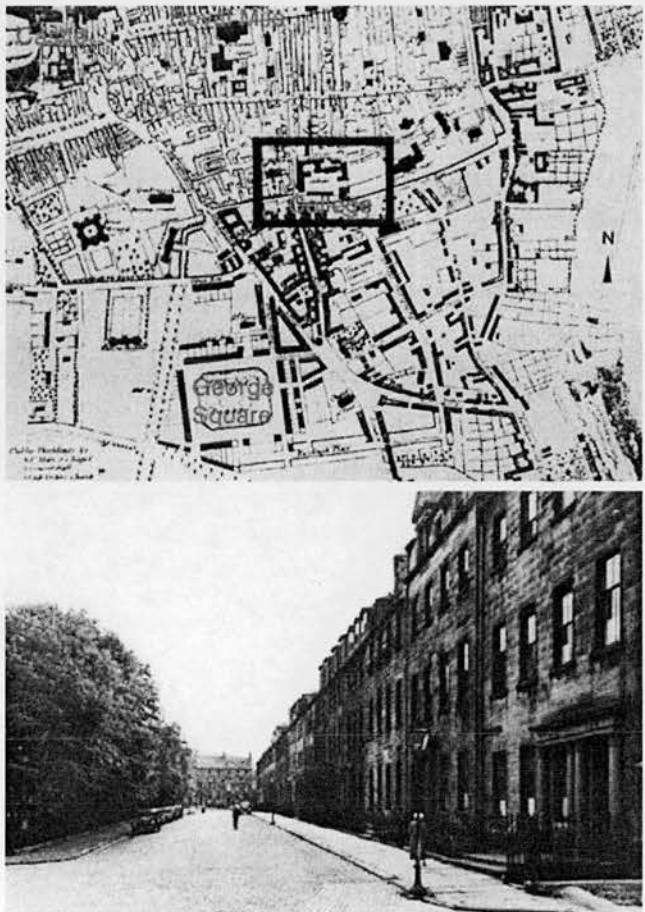


Figure 3.11 The road proposal of the 1953 City Development Plan of Edinburgh

Responding to amounting criticisms of Abercrombie’s road proposal, the City Planning Committee made considerable revisions to the Plan. The inner ring road and outer ring road were cancelled and the revised 1953 road plan was passed without major objections in the 1954 Public Enquiry.



The map (top) shows that George Square was the only large open space in the Old Town. The Square was built at the same time and in the same spirit as the New Town. The houses in the Square were built in the eighteenth century Georgian style and the resulting Square was a fine middle-class residential precinct.

Figure 3.12 The location of George Square in the Old Town and its houses in the 1930s



Figure 3.13 The Senate House of the University of London by Charles Holden, 1937
 This imperialistic, neo-classical building, built of Portland Stone, conformed with a prevailing trend in architectural design for important civic buildings in the 1930s. In the 1950s, the style was criticized as unsuitable for the image of a modern university.

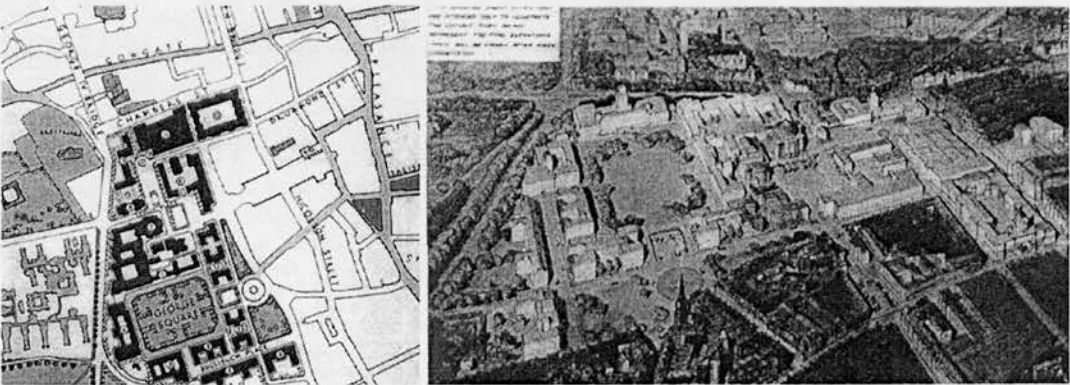


Figure 3.14 Charles Holden's proposal for George Square development, 1946
 Holden proposed a west-east axis for the George Square precinct and arranged a grand entrance from Buccleuch Street. However, he ignored the awkward relationship between this axis and the slope of the square from north to south. It should be noticed that the new buildings on the west side of George Square, and to the north of McEwan Hall, derived directly from the design of the Senate House for the University of London.



Figure 3.15 The House of Salisbury Green

This Baronial-style house was built in the late 19th century and was later used as a girls' school until the 1940s. Donald Pollock bought the property and converted it into a hostel for female students at the University of Edinburgh.

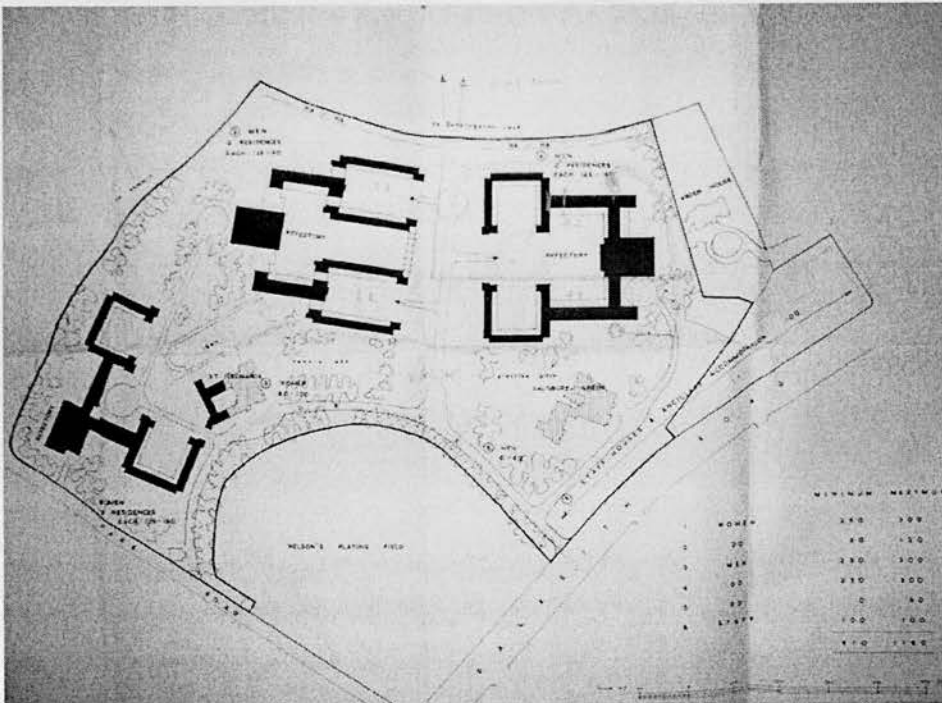


Figure 3.16 Plan of halls of residence at the Salisbury Green site by William Kininmonth, 1950

The proposed accommodation for 1,000 students was divided into three groups, each of which was organized around courtyards. The two halls for men formed a north-south axis, flanked by the hall for women. The core for each hall was the refectory and common rooms, which would be in the form of rectangular blocks.

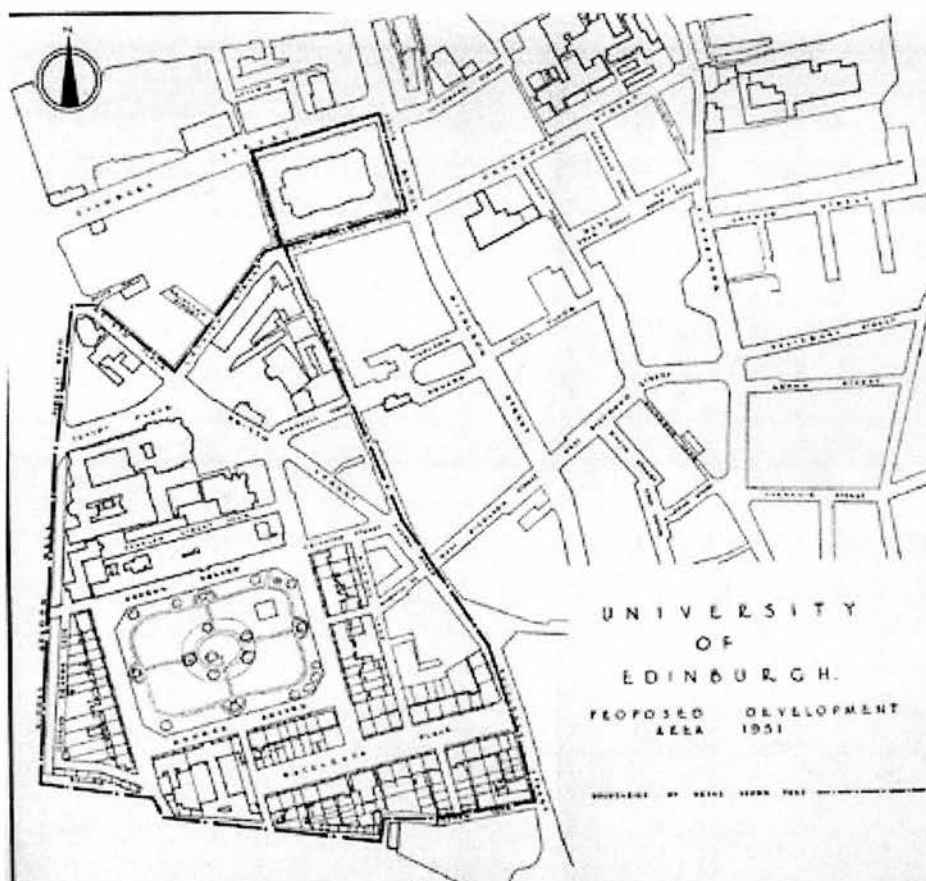


Figure 3.17 The University Development Area Plan, 1951

Centred around George Square, the University Development Area included the Bristo area, Buccleuch Place and the area marked at the south by the Meadow Lane. The boundary of the Development Area presented a problem which the University authorities never solved. This was how to connect the George Square precinct with Old College. Later, in the 1950s, there was a debate within the University community concerning the problem of Old College becoming peripheral.

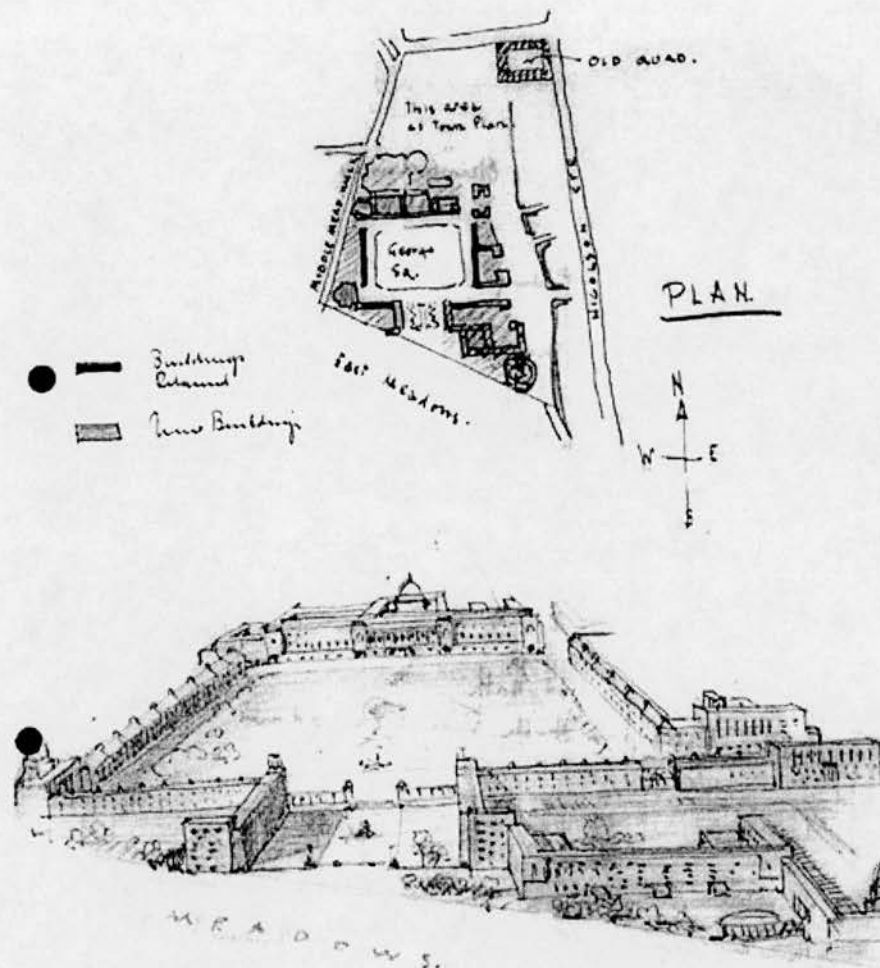


Figure 3.18 Sketch for George Square by William Kininmonth, 1951

William Kininmonth proposed to retain the existing houses around George Square while connecting them with new linear blocks. Though it appears to be an impressive work, there were several respects in which it was unclear. First, could this design provide enough accommodation for the University's expansion? Second, how would a proper circulation for the new linear blocks be arranged in the plan? Third, what would happen beyond the George Square?

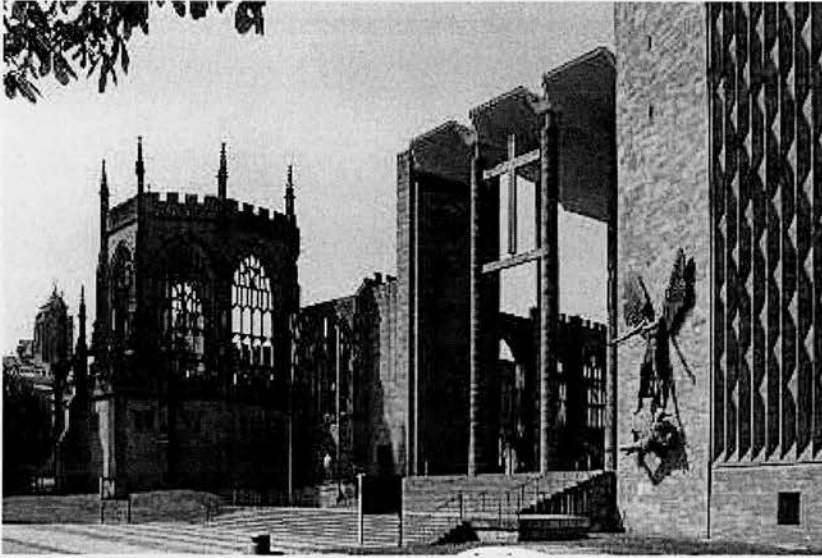


Figure 3.19 Coventry Cathedral: the relationship between new and old

During the Second World War, Coventry Cathedral was heavily damaged by bombing. The City Council of Coventry decided to reconstruct the cathedral and, in 1950, held an open competition. Basil Spence's design was selected from 219 entries. He insisted on retaining the relics of the old cathedral and putting the new and old side by side. Spence's manipulation of materials and architectural forms indicate the influence of Le Corbusier. Though this design received severe criticism, in terms of the unorthodox style and treatment of the structure, the new cathedral became a popular landmark, typical of the Festival Style in post-war Britain. The competition was a milestone in Spence's career.

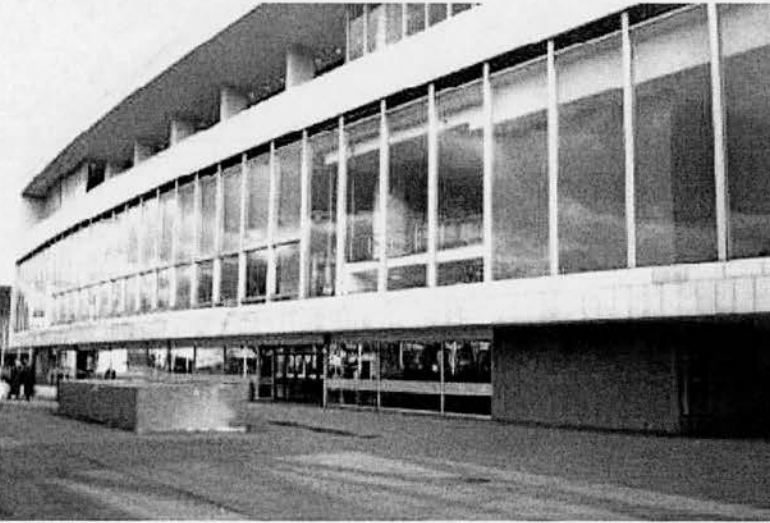


Figure 3.20 The Royal Festival Hall, 1951

Compared with Basil Spence's Coventry Cathedral, the design of Leslie Martin, Peter Moro and Robert Matthew for the Festival Hall at the South Bank, London, of the same time, reveals a different aspect of the Festival Style. The architecture of the Royal Festival Hall was inspired by the Russian Constructivists in the 1920s and the International Style in the 1930s.

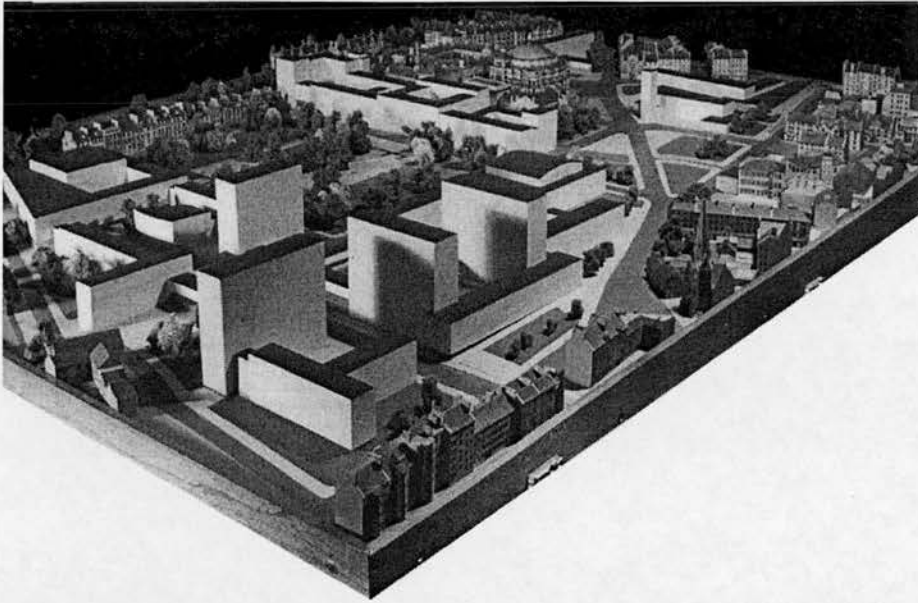


Figure 3.22 Model of Basil Spence's proposal for George Square, 1955

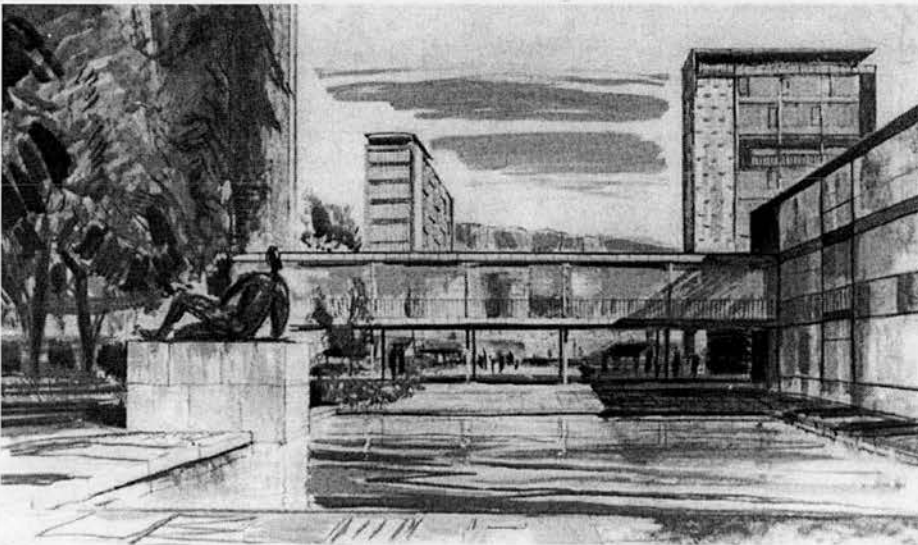


Figure 3.23 Spence's pencil sketch for Buccleuch Place of George Square precinct, 1955

The perspective, from inside the George Square precinct, is a picturesque composition of the proposed built environment and natural surroundings. The trees, sculpture and water were to soften the rigid interface between the buildings and the outdoor space. It could be argued that it represents a Modernist interpretation of the collegiate tradition. But what would the university precinct look like from the outside? It appears that Spence's plan lacked careful exploration of the relationship between new and old. He exalted the notion of the striking effect but it was so dominant in his mind that the relationship of the old and the new was disregarded. From the model, it can be seen that the configuration of the linear blocks and towers followed the preconceived internal-communication lines of education and was not based on considerations of the existing urban fabric.

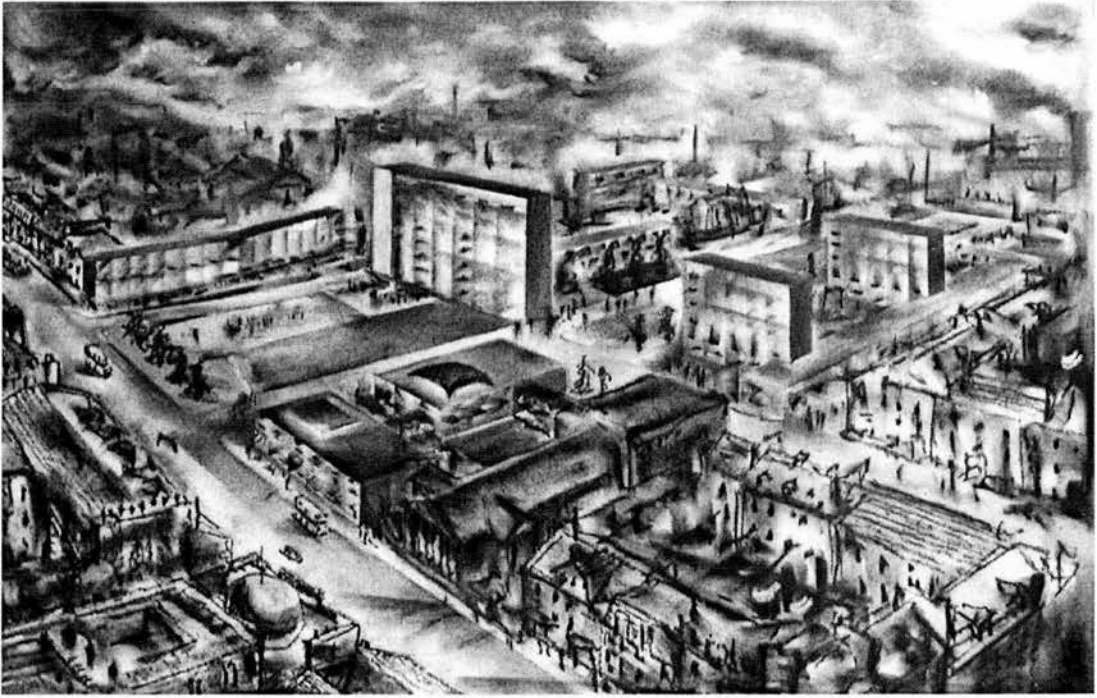


Figure 3.24 Spence's sketch for the redevelopment of High School Yards, 1955

Spence proposed to create a grand setting for the entrance of Old College by placing the new multi-storey teaching block off Nicolson Street so as to create a landscaped garden between these two building. His plan for the High School Yards was of Corbusian character. The multi-storey blocks would have a very small footprint so as to allow more open space. Spence's sketch was a creative art work. However, like the drawing for George Square, its artistic gestures blur the relationship between the new and the old.

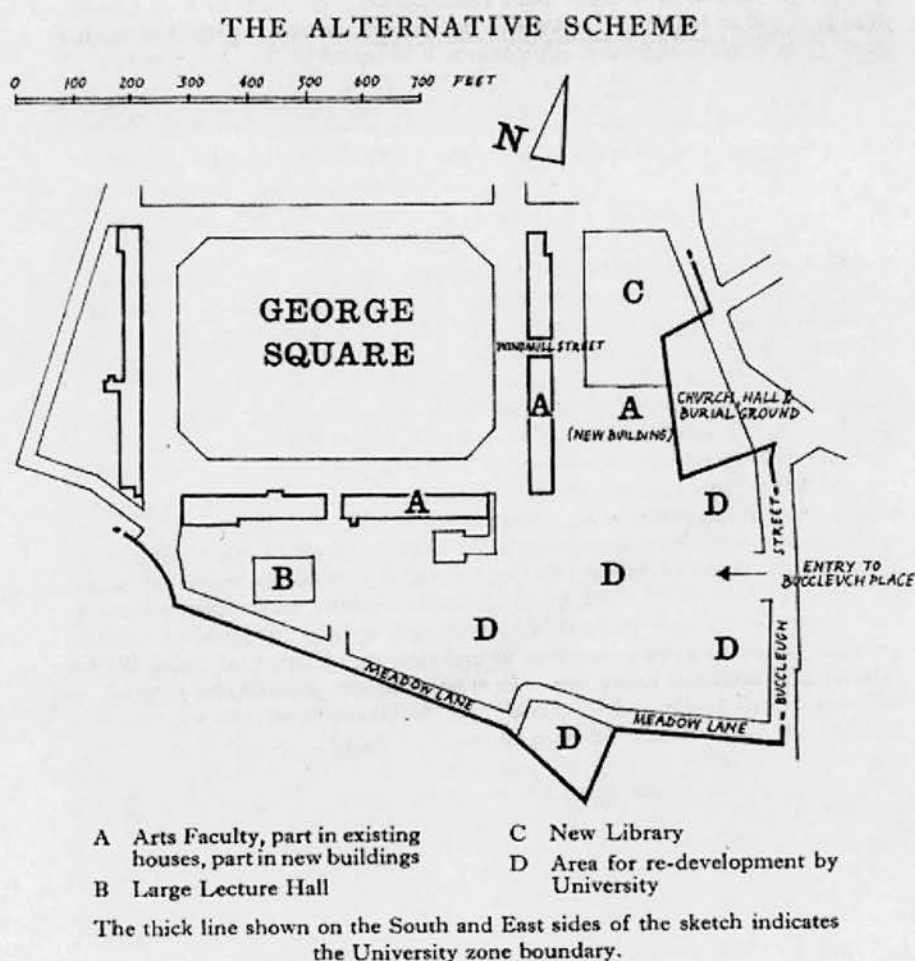


Figure 3.25 The alternative Plan for George Square by the Tripartite Committee, 1960

This plan was drawn by the conservation groups for discussion by the 1959 Tripartite Committee of the University, the City Council and the conservation groups. The conservation groups did not, however, make further detailed proposals for the development of the area between George Square and Meadow Lane. There were perhaps three reasons for this omission: (1) there was not enough time to make a detailed exploration; (2) there was not adequate information provided by the University authorities; (3) the conservationists did not have a clear view of what a university should look like. This scheme, of giving rough allocations to different departments and buildings, was not adequate to form a comparison with the proposal made by the University architects. The proposal was rejected by the University authorities and the Tripartite meetings ended without resolution in 1960.

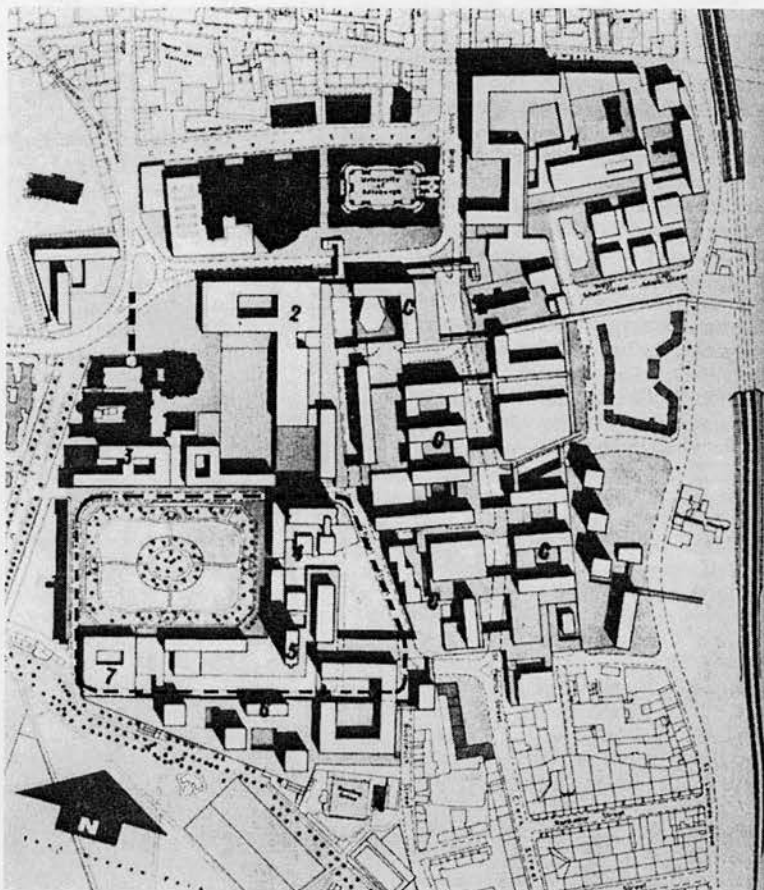


Figure 3.26 The Comprehensive Development Area Plan proposed by Percy Johnson-Marshall, 1962



Figure 3.27 Sketches of the Comprehensive Development Area Plan, 1962

The University/Nicolson Street C.D.A. Plan was an ambitious proposal by Percy Johnson-Marshall. With the podium above existing roads, it aimed to create a safe and free environment for the University and its surrounding community. It was believed that, with enactment of the C.D.A., the University and the City would co-exist harmoniously. However, the University authorities and their architects-planners underestimated, or ignored, the grounds of conflict between the two sides – which was characteristic of Town and Gown relationships at this period. (The proposed service loop for the George Square campus – in dotted line – was: the northern and western parts of existing pavements of the Square– Buccleuch Place – Buccleuch Street – Crichton Street. Another service access was via the relined Teviot Place.)



Figure 3.28 Phasing of the implementation of the University/Nicolson Street C.D.A., 1964

The project of the C.D.A. was divided into four stages. The first phase (one to five years) included the redevelopment of George Square, the island site, the area between Potterow and Nicolson Street; the second phase (six to ten years) would mainly incorporate the site of Buccleuch Place, the southern part of Nicolson Street and the High School Yards; the third phase (eleven to fifteen years) would be the redevelopment of part of the Pleasance, Hill Place, the southern part of Buccleuch Street, the Teviot triangle and the Heriot-Watt College site on Chambers Street; and the final phase (sixteen to twenty years) concentrated on acquiring the areas of Clerk Street and the site facing the Teviot triangle. Since the land acquisition and compulsory purchase in the City progressed in a piecemeal fashion, and since there were conflicts of interest between various concerned parties, the implementation of the C.D.A. could not advance coherently. The area was a complex and complicatedly evolving patchwork.



Figure 3.29 The Parker's Triangle before demolition

In the background is the newly-built Appleton Tower for the University's First-Year Science teaching. Under the sheer volume of the Tower, even the steeple of the church nearby was dwarfed. The striking contrast between the new and old also provoked the clamour of the conservation lobby in the late 1960s.



The façade of Adam House mirrored Robert Adam's design at the opposite side of Chambers Street. The Venetian-style window, above the main entrance, is the motif frequently used by Adam. He applied this motif in his proposal for the inner façade of the Old College though it was later changed to Corinthian pilasters by William Playfair. Adam House was designated as the examination hall in the 1950s.

Figure 3.30 Adam House by William Kininmonth, 1955

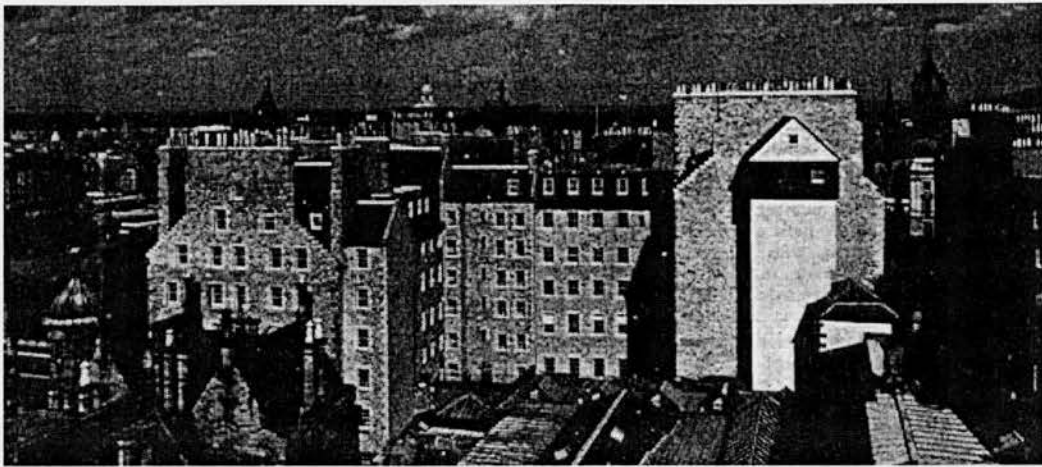


Figure 3.31 Mylne's Court on the Royal Mile

Reconstruction of Mylne's Court was the most successful conservation project the University authorities undertook in the 1960s. It became one of the most popular students' residences largely due to its proximity to city life and its spectacular views towards the Castle, the New Town and the Sea.

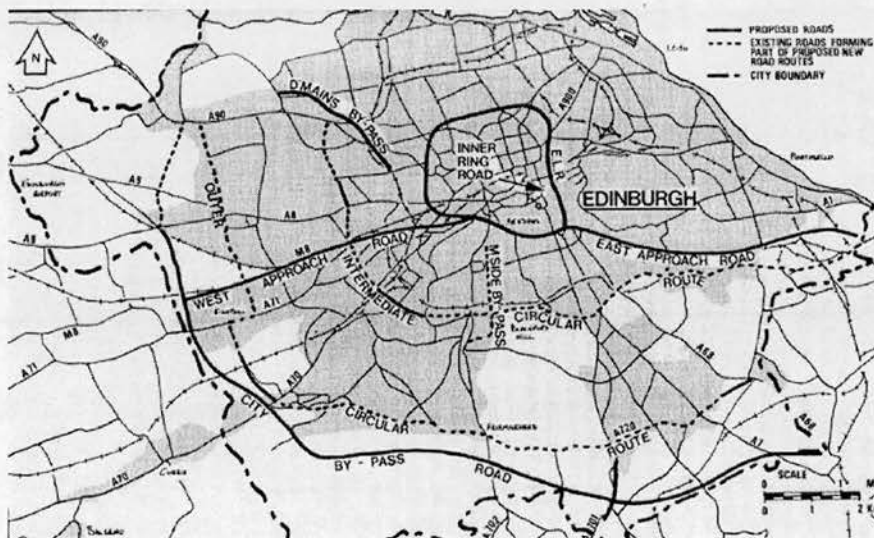
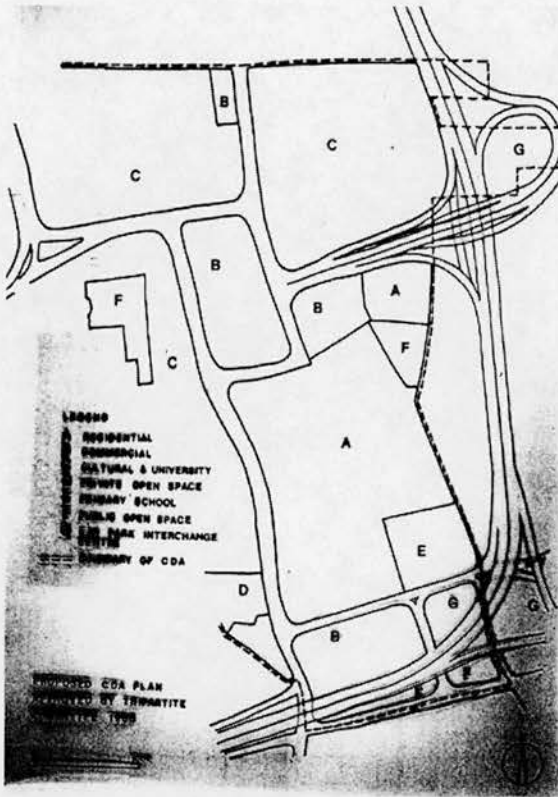


Figure 3.32 The road proposal of the 1965 City Development Plan Review

Fifteen years passed after Sir Patrick Abercrombie's abortive proposal of the inner ring road for the City of Edinburgh. No reconsideration was made until 1965 when the Technical Working Party of the City Planning Committee drew up a new version of the road proposal for Edinburgh. Compared with Abercrombie's 1949 proposal, the southern and eastern links of the inner ring road were the same. However, the northern link was moved further north and the western link was shifted to the Haymarket.



This road plan of the C.D.A. aimed to incorporate the revised 1965 road proposal of the City Development Plan. An interchange, with a massive car park, was proposed in the Pleasance so as to connect Nicolson Street with the eastern link of the inner ring road. The area covered by the C.D.A. was divided according to different functions: A – residential, B – commercial, C – cultural and university, E – primary school and so on. This division appears as a sort of zoning and somewhat at odds with the original idea of the C.D.A. – which mixed functions differently. It should be noticed that the C.D.A. was enlarged to incorporate the area around South Clerk Street.

Figure 3.33 The 1968 road proposal of the University/Nicolson Street C.D.A.

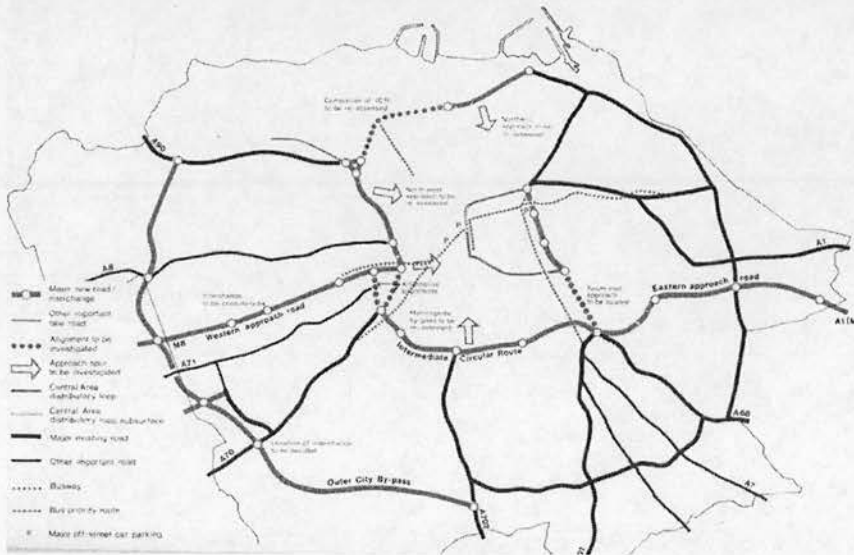


Figure 3.34 The road proposal in *Edinburgh: The Recommended Plan* (1972)

Compared with the road proposal of the 1965 City Development Plan, this plan sought to decrease the road work and its impact on the urban environment. For example, this plan avoided the dramatic changes of the inner road system at the West End as proposed by the 1965 City Development Plan. Instead, it used the existing George Street and Lothian Road as the northern and western links.

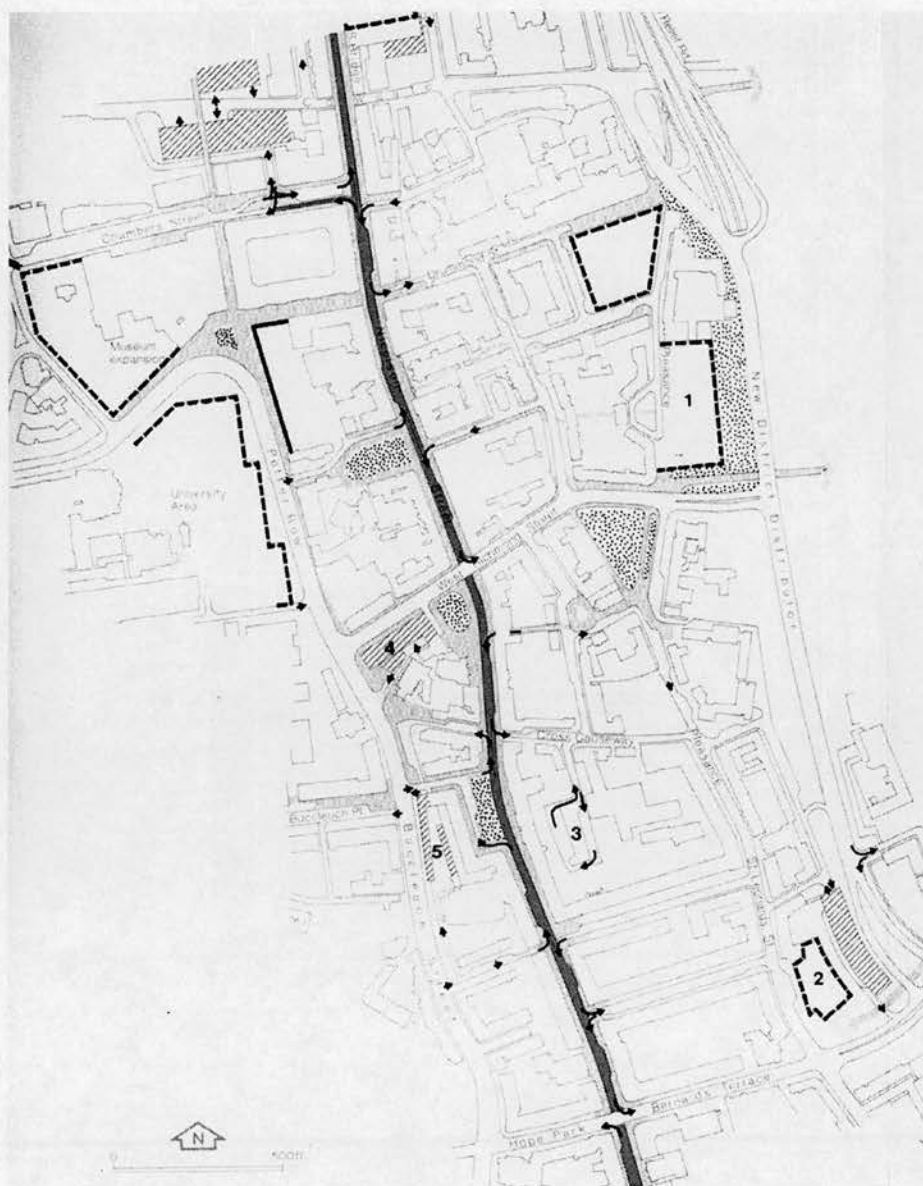


Figure 3.35 Proposal for the South Side by *Edinburgh: Recommended Plan* (1972)

The joint study by the Planning Consultants and Transport Consultants re-examined the case for the University/Nicolson Street C.D.A.. They concluded that, with the addition of the eastern link of the inner ring road and emphasis on public transport, the existing road system in the South Side, with some minor changes, would be adequate. This decision saw the end of the ambitions of the University authorities. The proposal to line up Lauriston Place with Potterow, by means of a roundabout, had a great impact upon the construction of the new Student Centre for the University. In order to secure a 'safe' and 'continuous' communication line between Old College and the George Square campus, an awkward semi-underground tunnel was constructed in the late 1970s. This road was another eye-sore that marred the post-war urban history of Edinburgh – exceeded only by the blight of the Crichton Street Car Park.



Figure 3.36 St Patrick Square in the 1970s

This image illustrates the typical scenery as a consequence of planning blight in the South Side during the 1970s. It was regenerated later and retailers were brought back. It is now the premises of the Edinburgh Bargain Store.

Illustrations and Tables to Chapter Four

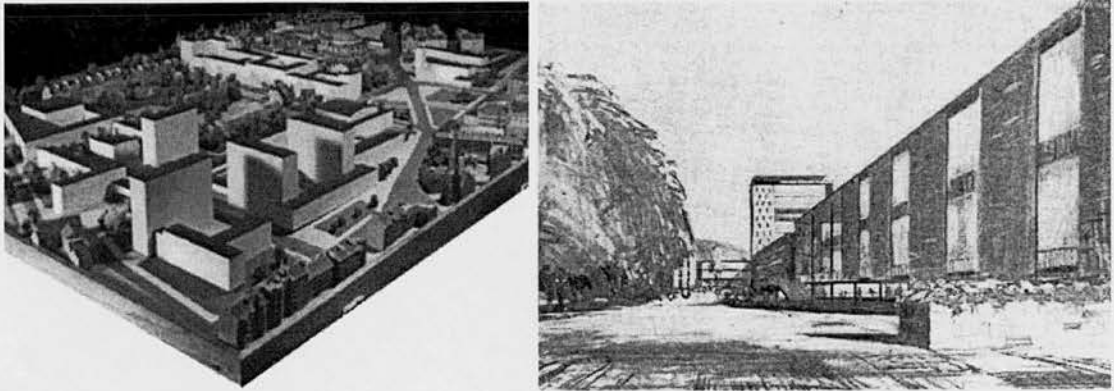


Figure 4.1: Basil Spence's proposal for the redevelopment of George Square, 1955



Figure 4.2: Model of Robert Matthew's proposal for the Arts buildings in George Square, 1959

Compared with the linear buildings of three storeys, in Spence's 1955 plan, the linear blocks in Matthew's plan were of four storeys, apparently in order to obtain a higher plot ratio. While Spence's buildings tried to link with the verticality of the existing tenements, Matthew's blocks emphasized horizontality, and pilotis were applied to the ground floor in order to enrich the façades.

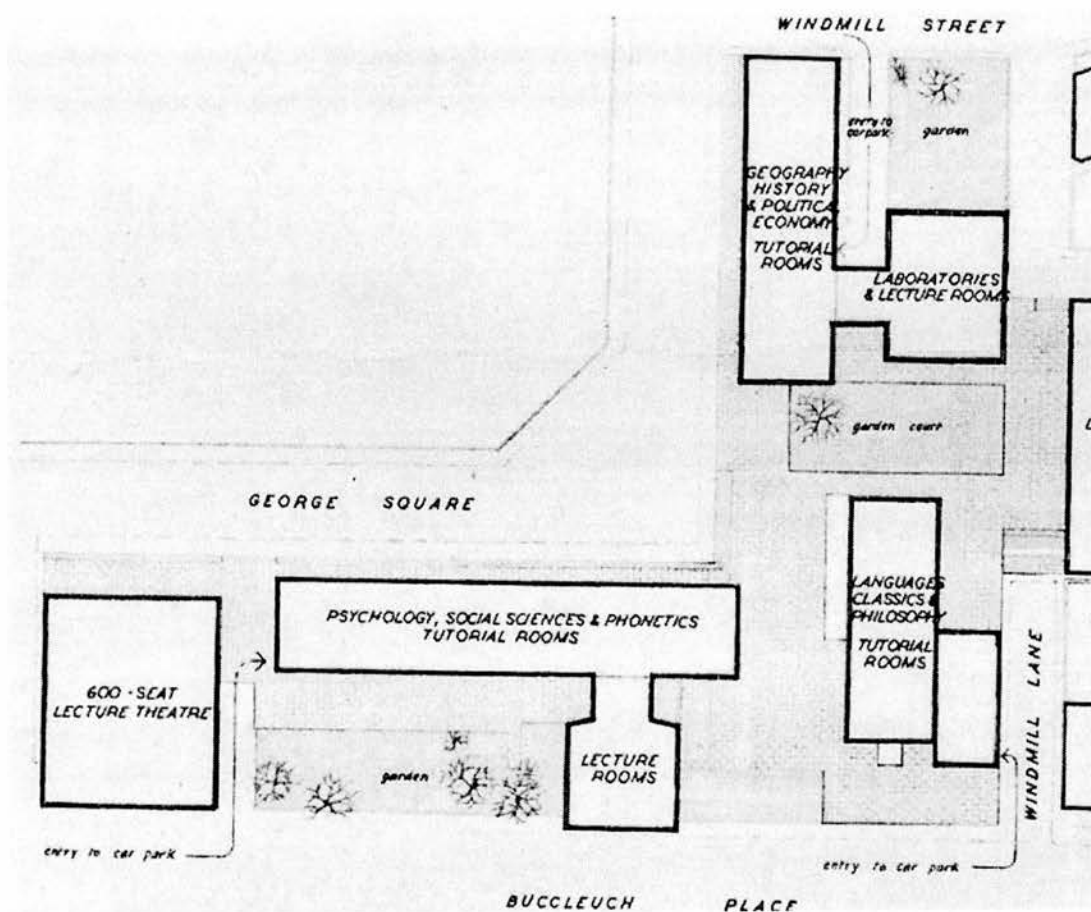


Figure 4.3: Distribution of departments in the Arts and Social Sciences buildings, 1960

Block C (at the east side of the Square) would accommodate Geography, History and Political Economy while Block D (at the south side of the Square) would house Psychology, Social Sciences and Phonetics. In 1963, Geography and Psychology were excluded from the linear blocks. Although the desire to give visible identity to the new Faculty of Social Sciences was strong after 1962, accommodation of the Arts and Social Sciences remained mingled.

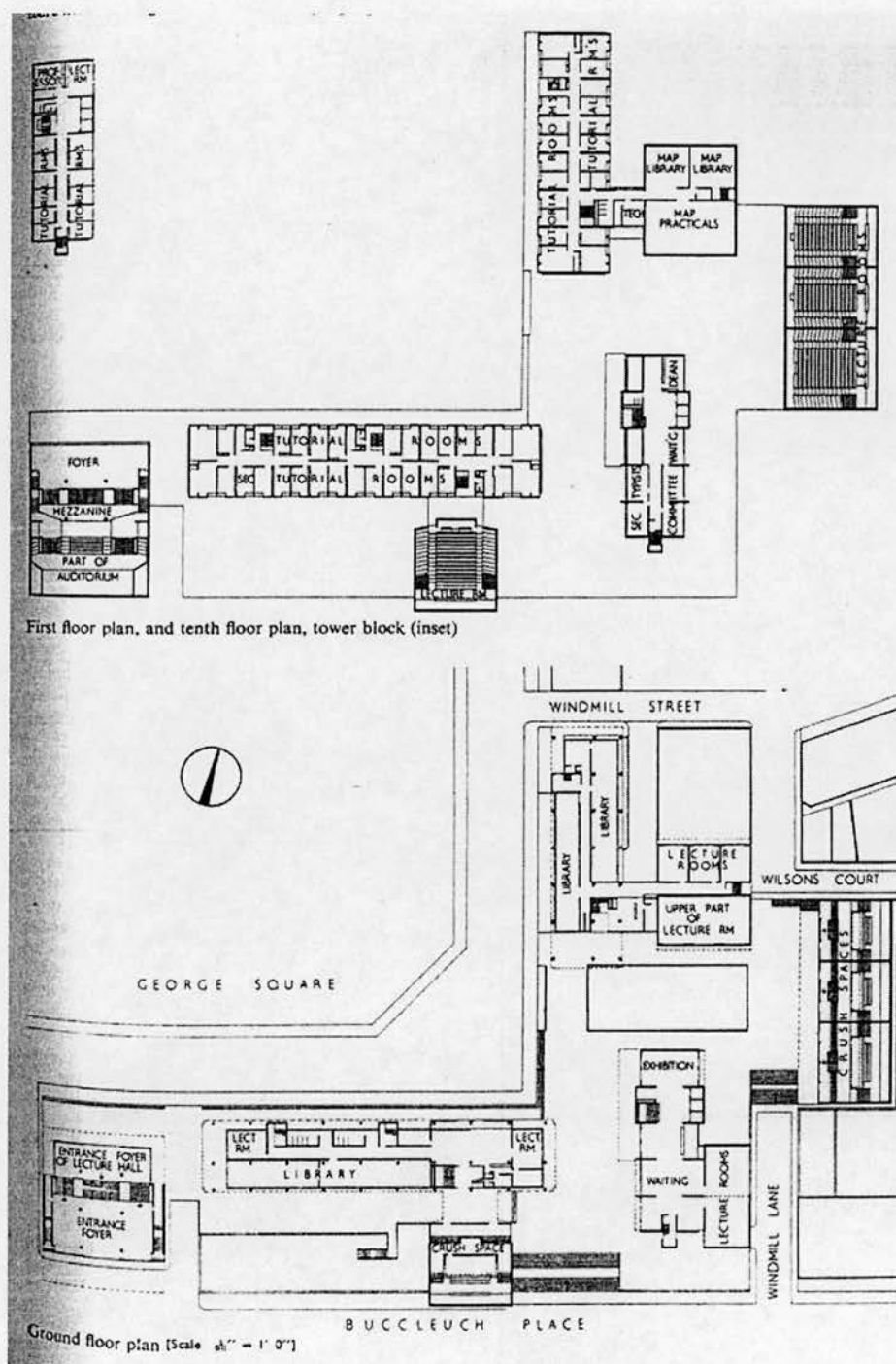


Figure 4.4: Floor plans of the Arts buildings by Robert Matthew, 1960

In this plan, the independent buildings are via ramps and stairs at sub-podium level. In the linear blocks, staircases protrude from the outer walls of the buildings, being important formal elements of the façades. It seems that the notion of the podium suited the character of the redevelopment better than the courtyard since the redevelopment of George Square had to be carried out piece by piece.

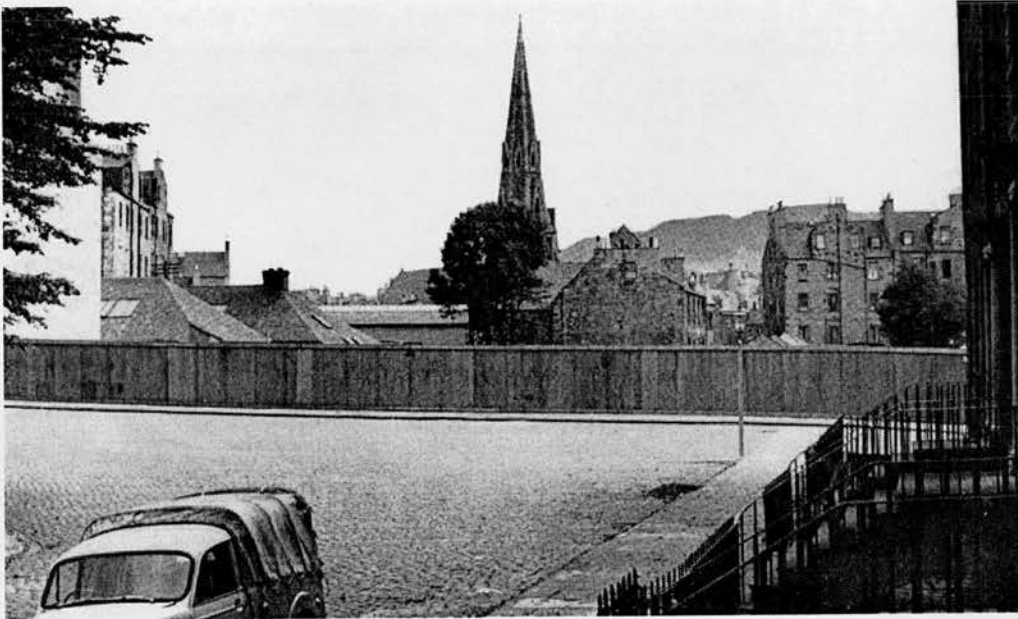


Figure 4.5: East side of George Square during construction of the Arts Tower, 1961

From this image, we can see that the cityscape was defined by the steeple of the church in the foreground and Arthur's Seat in the background, with chaos in the middle. The architects boldly asserted their belief that their surgery would improve the skyline by inserting the unifying horizontal lines of the teaching blocks and pointed vertical towers.

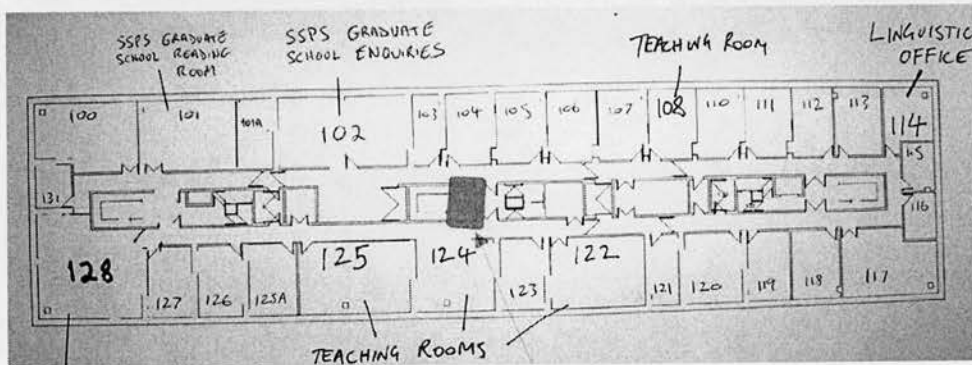


Figure 4.6: Typical floor plan of the linear blocks, 1963

With the staircases being moved from flanks to the middle of the building, a layout of dual inner corridor was proposed. The service rooms and toilets were placed beside the top-lit staircases. With light and movable partition walls, the rooms surrounding the staircases, the architects perceived, could be changed at will. However, this dual corridor plan seems to be too complicated for a building with a small footprint. In order to allow adequate spaces for staircases and rooms on both sides, the corridors had to be reduced to minimal width. The luxury of space to help create a welcoming feeling for the interior of the building was denied.

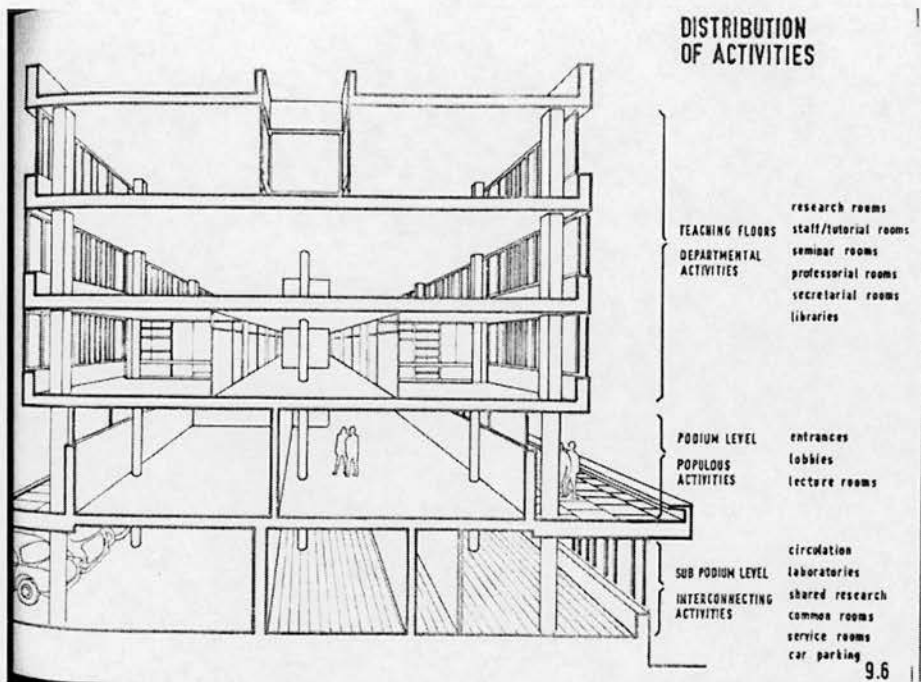


Figure 4.7: Section of the linear blocks showing distribution of activities in the buildings

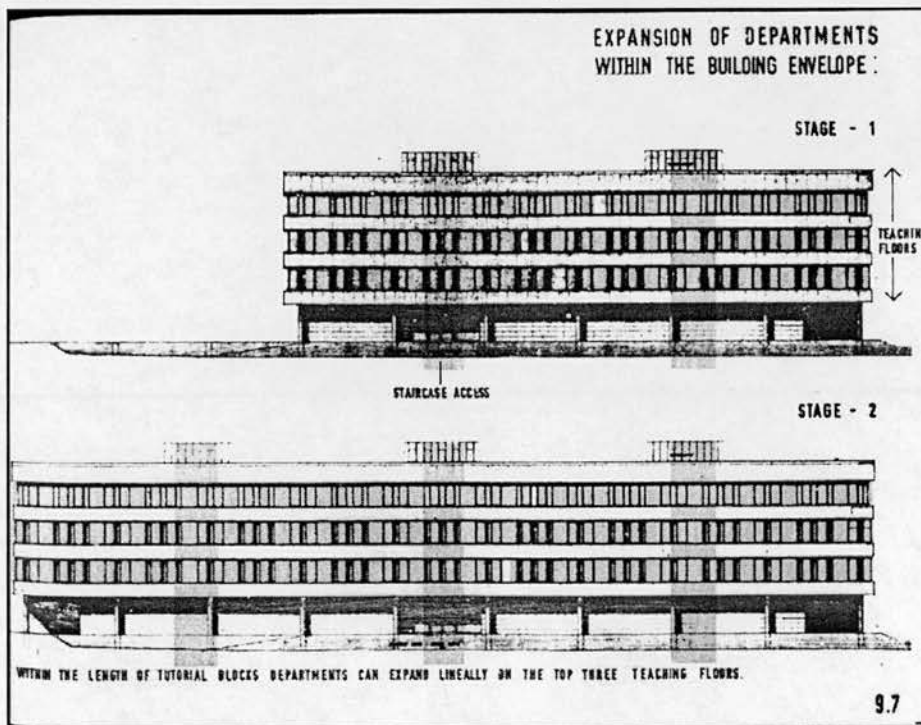


Figure 4.8: Façade of the linear blocks in George Square

These two images, collectively, show how the façade correlates with the sectional arrangement in the linear blocks. In the section, the building is divided into three levels: departmental activities, populous activities and interconnecting activities from top to bottom. The three layers in the façade – podium slab, walls flanked by pilotis and horizontal windows – correspond to the stratification within the building.

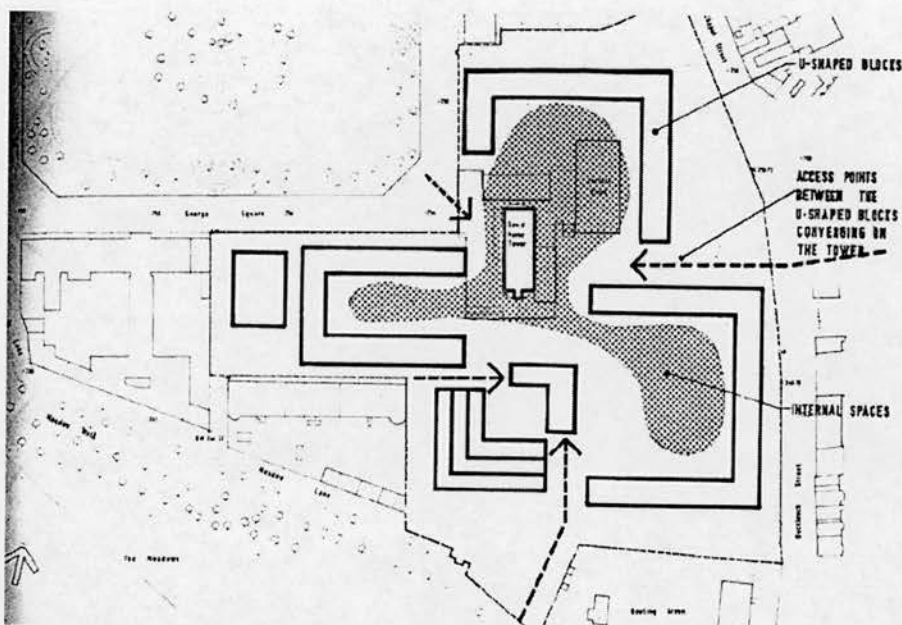


Figure 4.9: The site plan of the Arts and Social Sciences Precinct, 1964

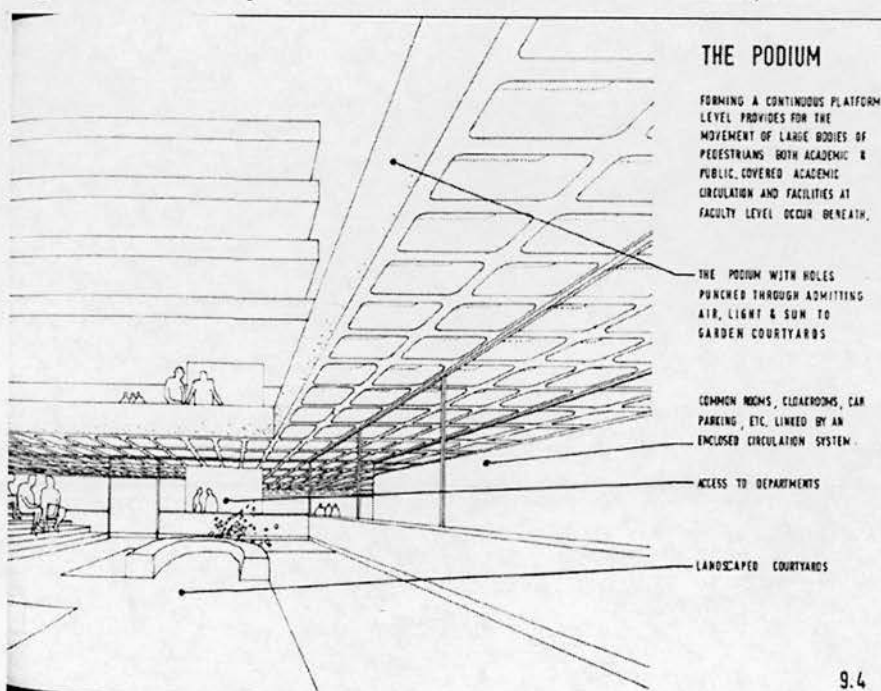


Figure 4.10: The podium of the Arts and Social Sciences buildings, 1964

What RMJM proposed for the Faculties of Arts and Social Sciences was a precinct enclosed by three linear blocks. It may be considered as a realisation of Le Corbusier's ideal for the modern city. A large amount of open space was to be created, and pedestrians and traffic segregated. The podium was a decisive element in the whole planning, which created an interesting interplay of activities in various levels. The perspective drawing shows a nicely landscaped garden in the sub-podium level. However, it is not clear whether it is appropriate to retain the ideas associated with the first phase of the new Arts buildings – Arts Tower, Block C and D and lecture halls – at a much larger scale.

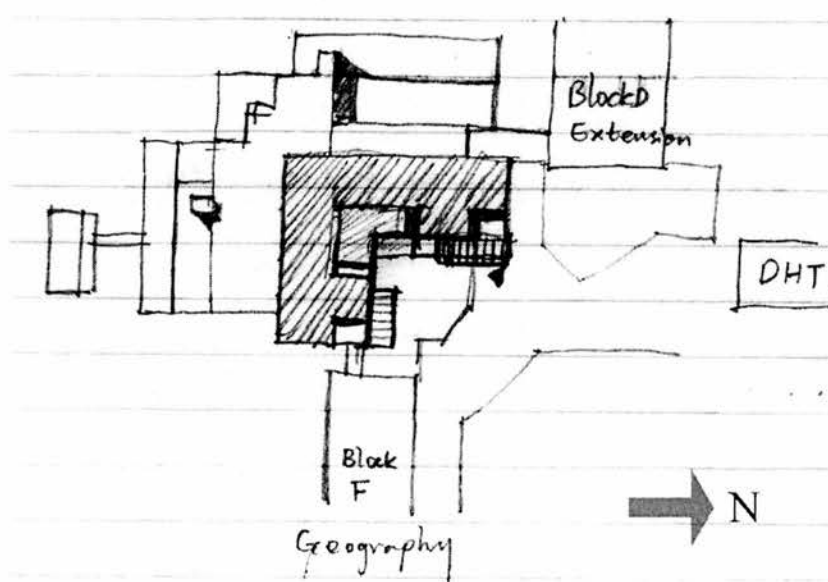


Figure 4.11: RMJM’s plan for Geography/Architecture building at Buccleuch Place, 1965 (reproduced by the author)

The importance of the Architecture building in the plans of the Faculty of Arts and Social Science was because Robert Matthew – then Professor of Architecture and founder of the Department of Architecture – was planner of the redevelopment of the University of Edinburgh. From this drawing, it can be seen that the architects strove to make this building something of the ‘jewel’ of the whole development. The sloping site facilitated the terraced arrangement of the building. The skyline, which was full of surprise, would bring a rich effect of dark and light to the building.

Table 4.1 The building programme for the quinquennium 1971-77

Projects	Expenditure (£)
Groups 1 (1970-71)	
Completion of Physics/Maths	1,500,000
Improvement of catering facilities in K.B.	200,000
Group 2 (1972-73)	
Biochemistry Phase I	400,000
Psychology	500,000
Group 3 (1973-74)	
Block F	400,000
Architecture and Geography	1,500,000

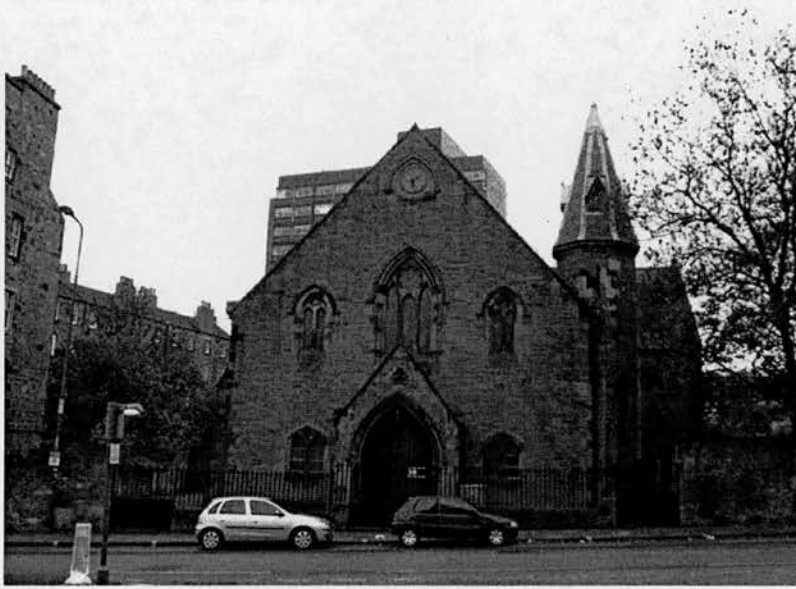


Figure 4.12: Chapel Street Church

This church was firstly built in 1755 and reconstructed in 1866. Protected against demolition in the 1970s, this building is used as a storage place for the University of Edinburgh.



Figure 4.13: The interior of the Adam Ferguson Building (Block D)

This is a concourse which has entrances to lecture rooms on the right hand side and connection with the sub-podium level by the ramp on the left. The fire walls were added to the original plan due to the requirements of the fire regulations. Although adding the fire walls was heavily criticized by the users since it interrupted free movement at the entrance level, it is ironic that those walls helped to define this space, by dividing them into several zones.

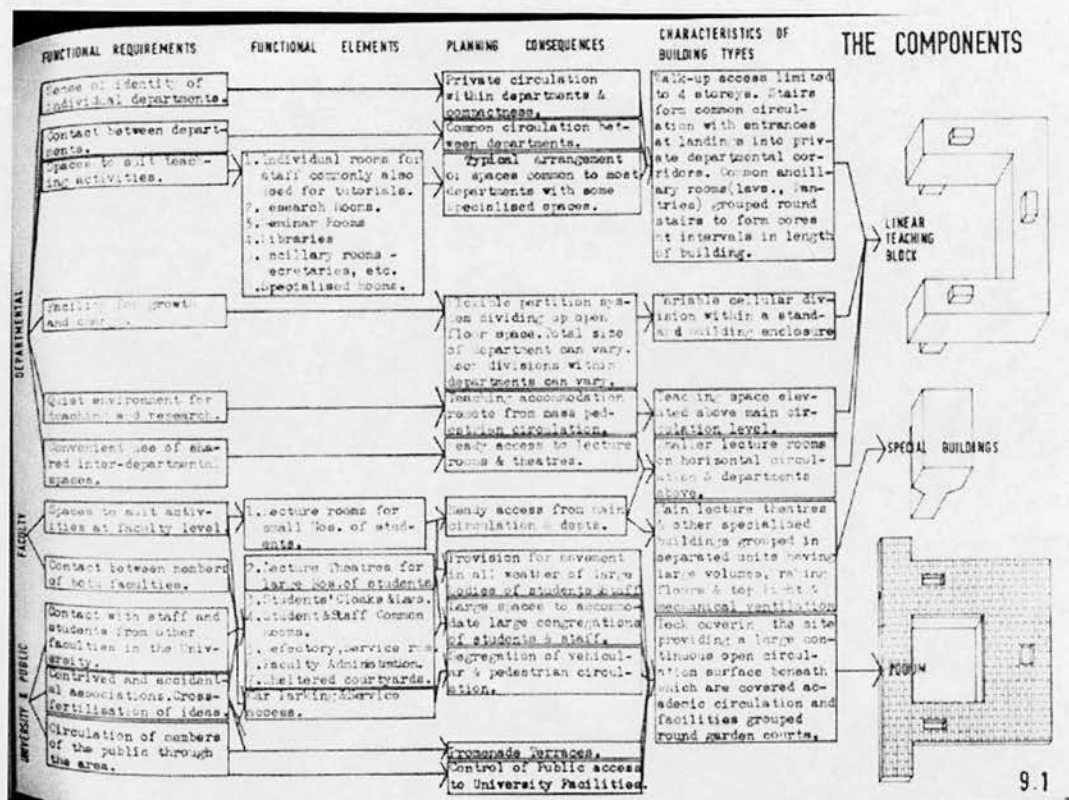


Figure 4.14: The diagrammed process of design of the Arts and Social Sciences building, 1964. The five-step process, as this sheet shows, is a reasonable procedure. However, this kind of objective approach excludes some requirements of the Arts and Social Sciences departments.



Figure 4.15: View towards the George Square garden from the podium. On the podium between the Hume Tower, Lecture Halls and William Robertson Building (Block C), is an attractive space created by trees and pilotis. Looking towards the George Square garden, from this space provides a rich view of various layers, pilotis, stairs, trees and lights.

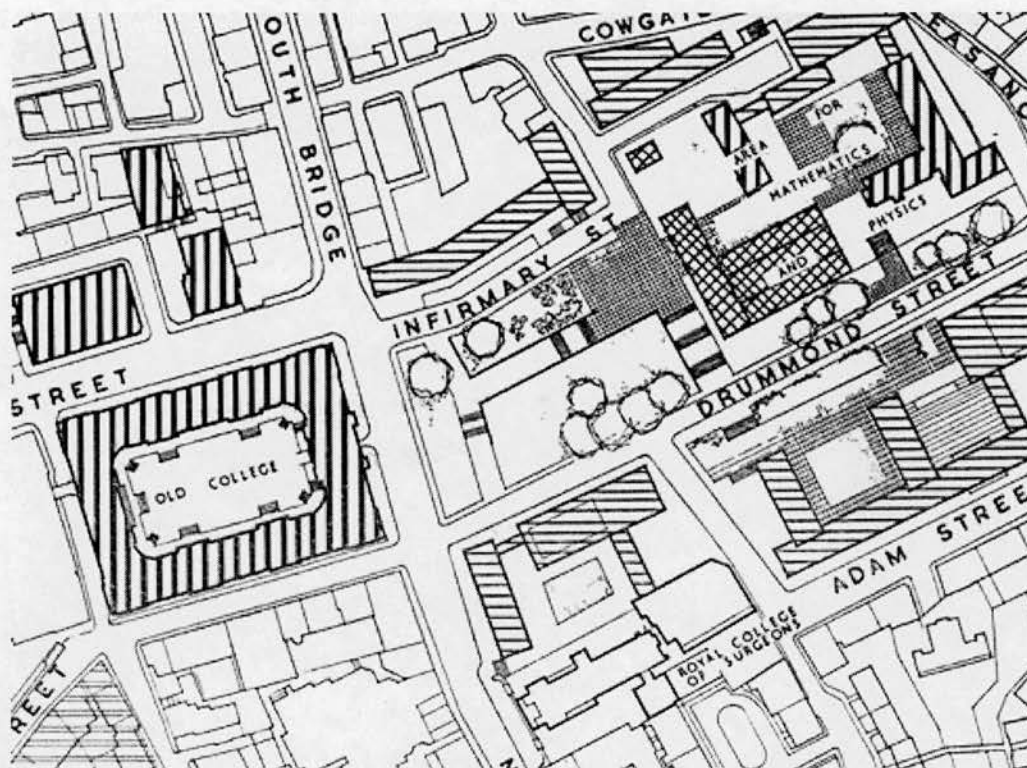
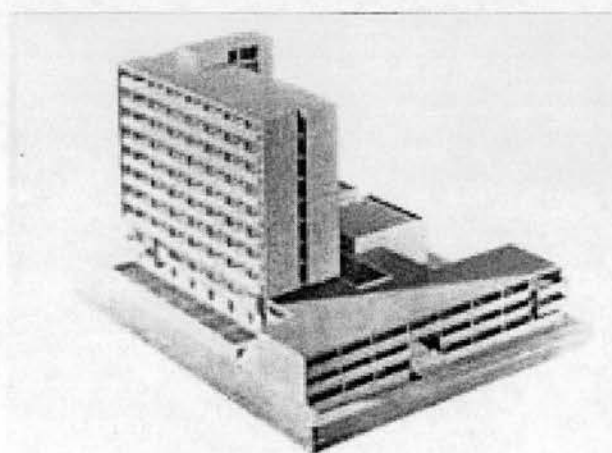


Figure 4.16: The preliminary plan for High School Yards by Basil Spence, 1957

In this plan, the old buildings in High School Yards would be occupied by the Departments of Mathematics and Physics. An administration centre had already been proposed in Old College and its nearby buildings in Chambers Street. The site on front of Old College, where South Bridge School, Infirmary Street Public Swimming Baths and Drummond Street Infants School were located, would be cleared and reconfigured as a terraced garden. A series of new constructions was proposed in Infirmary Street and Drummond Street. However, it is not clear which departments, apart from Mathematics and Physics, would be accommodated in these new buildings.



The laboratory tower was deliberately placed at right angles to the Arts Tower. The overall design shows a clear blocking of different functions in the complex. For example, the laboratories were accommodated in the open-planned tower while the tutorial function was given the form of the horizontal linear building.

Figure 4.17: Model of the First-Year Science teaching complex, 1961



Figure 4.18: The Main Concourse of the Appleton Tower when it was completed in 1966

One of the striking features of this space is the vast top-lit windows and its contrast with the dotted artificial lights under the ceiling. The design of the concourse suites the functions it serves and is a good example of the aesthetics of modern architecture.

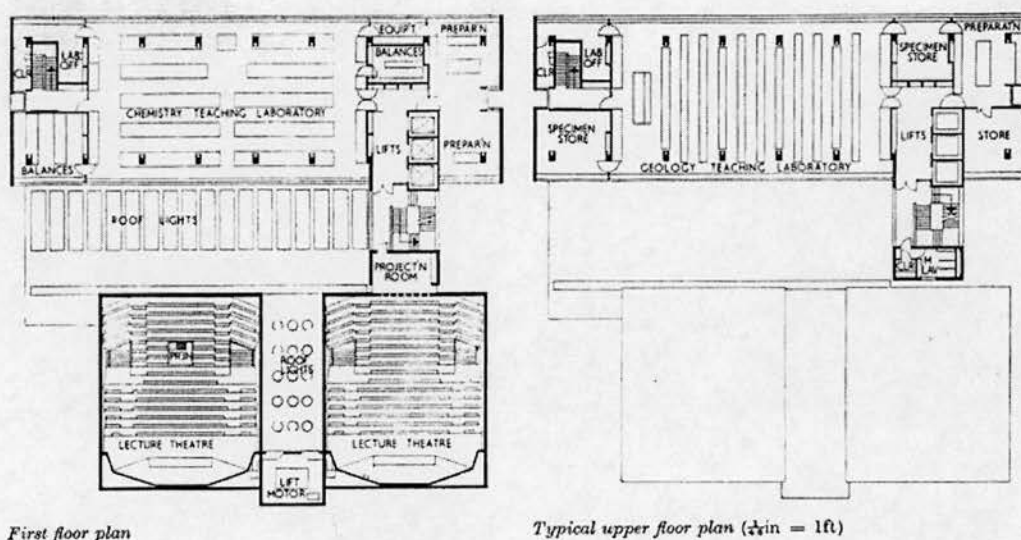


Figure 4.19: The two different layouts of laboratories in the Appleton Tower

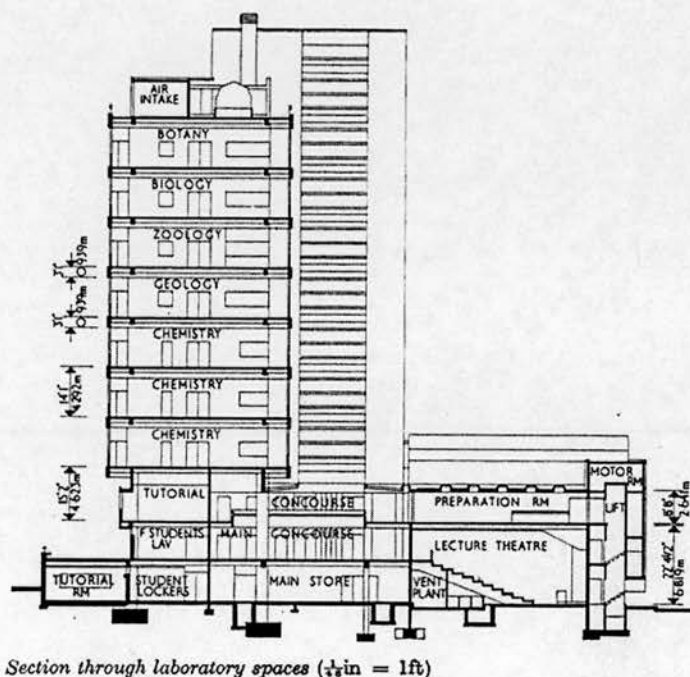


Figure 4.20: Section of the Appleton Tower, showing the allocation of accommodation

The typical layout of the laboratory floors was to place service rooms and circulation at each end of the block. The size of structural bay was apparently determined by the two different ways of organizing the experiment tables as the plans show. The standardized laboratory enables changes in the spatial organization. The section shows a clever configuration of various functions according to their needs and characters.

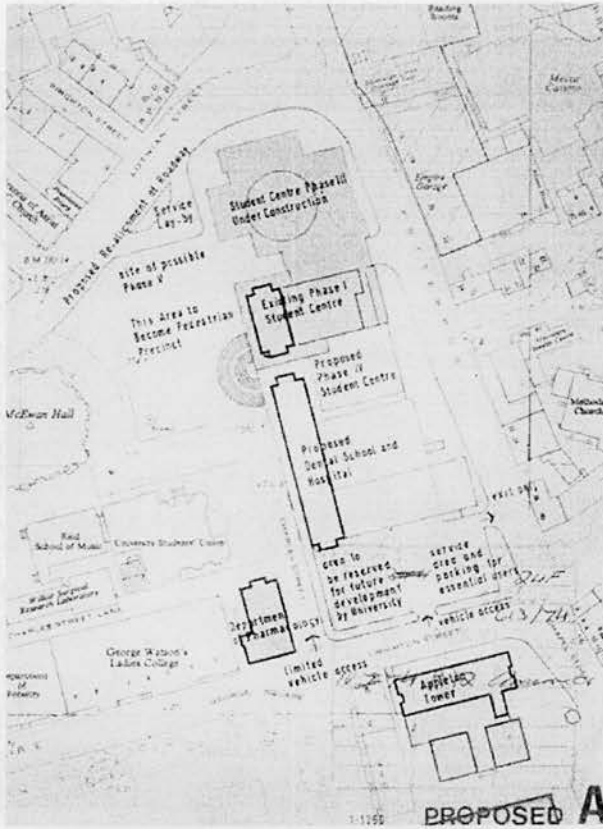


Figure 4.21: Plan of the Student Centre and Dental School and Hospital, 1976

The plan for new accommodation of the site north of Crichton Street underwent frequent changes after the City Council approved the Compulsory Purchase Order in 1964. Originally, its north part would accommodate the extension of the Student Centre. In the late 1960s, the University authorities decided that this extension to the Student Centre should give way to Physical Education. In the mid-1970s, the accommodation of Physical Education and sports facilities was rejected by the U.G.C. as inappropriate to the urban site. The University's next proposal of a new Dental School and Hospital was abandoned due to lack of funds.



A From Arthur's Seat to the Castle and Corstorphine Hill



B From Craigmillar Castle to Arthur's Seat and the Castle

Figure 4.22: The visual impact of the two towers on the cityscape of Edinburgh

The sketches (right) were drawn by William Holford for his 1967 report on *High Buildings Policy* for Edinburgh. Top right is the view from Arthur's Seat to the Castle while below right is from the viewpoint of Craigmillar Castle, in the southern outskirts of the City. In terms of volume and height, there is hardly any counterpart in the City to the David Hume Tower and Appleton Tower, except the Castle. The architects to the University had the aspiration of adding the twentieth century's part to the city skyline. The addition is indeed revolutionary; however, they failed to build links between these additions and the existing tall buildings of the City.



Figure 4.23: Appleton Tower in 2004

From an architectural point of view, the Appleton Tower is a well proportioned building with carefully worked-out details. However, these aesthetics qualities are little recognised in the City. Recently, there was a Channel 4 programme in which votes were invited for the ugliest buildings in the UK. The Appleton Tower, built in the 1960s in University of Edinburgh, was one of the top-listed -nominated by the Cockburn Association.



Figure 4.24: A new 'silhouette' proposed by Basil Spence, 1955

Of his preliminary sketches, Spence argued: 'The character of silhouette is an important one, for Edinburgh is a city of silhouettes. The opportunity exists to turn what is now a shambles into modern backs'. In his proposed new silhouette of this part of Edinburgh, the Main Library played an important role. The dome of the building would build a visual link with the McEwan Hall and Arthur's Seat and the Salisbury Crag. His approach was similar to that of Hugh Casson when he designed a new silhouette for the area of the University of Birmingham in the late 1950s, as Figure 4.41 illustrates.

From this viewpoint, at the Meadows, Spence sketched his bold Corbusian improvement of Edinburgh's cityscape. However, study from only one angle was not adequate to see how the modern buildings affect the whole cityscape. This sketch is one of few drawings by the architects which were not from a bird's eye. The plans of the University, explaining things from above, were seldom accompanied by ground-level views. Inadequate attention was paid to what should happen at the eyesight level, in other words, the streetscape.

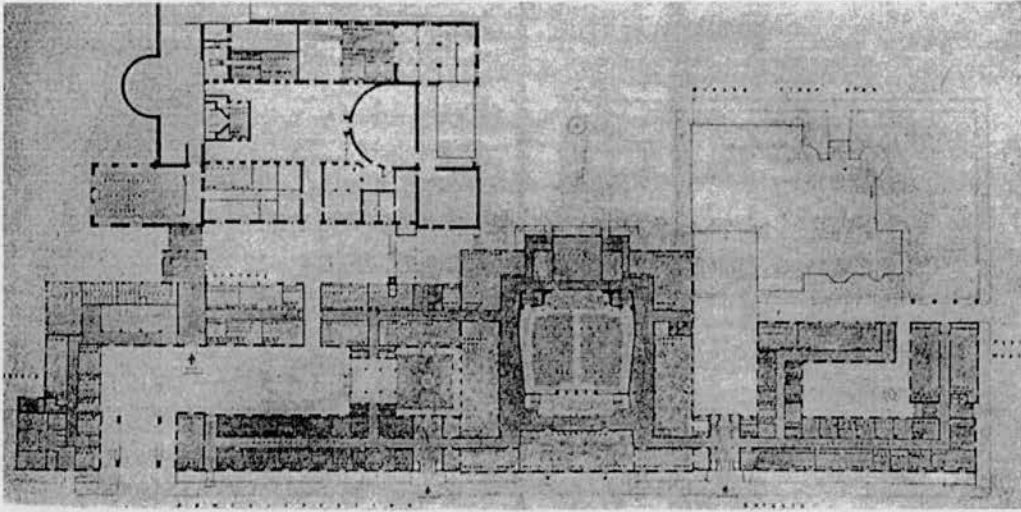


Figure 4.25: Ground Floor Plan of Walter Ramsay's winning entry of the competition of the University of Edinburgh Medical School Extension, 1951

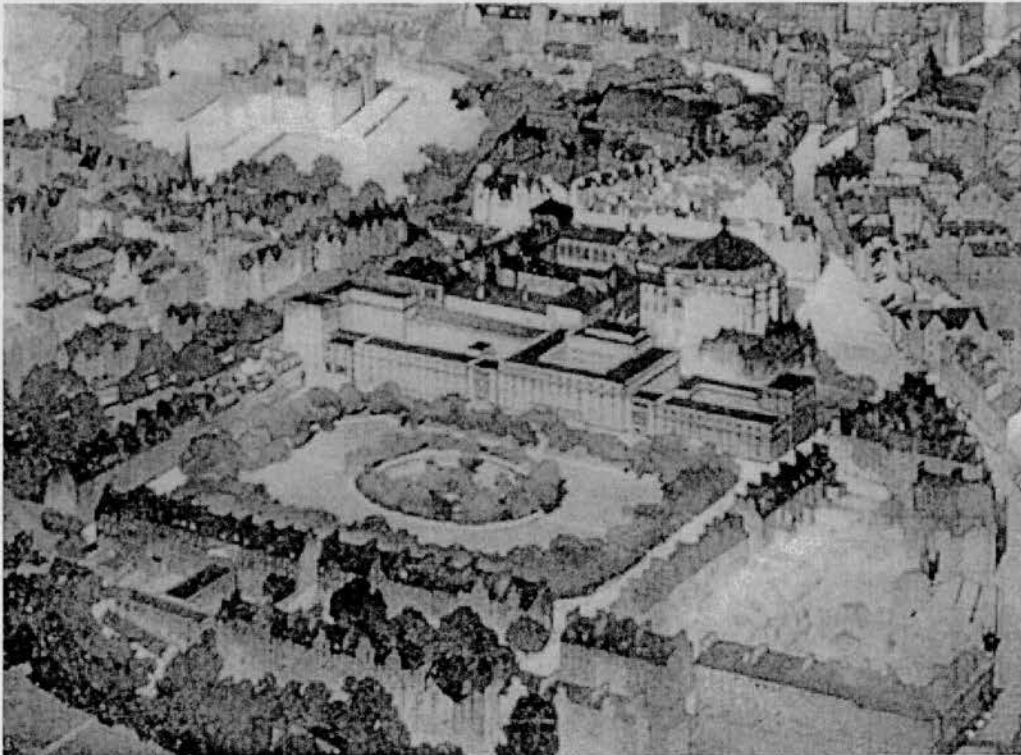


Figure 4.26: Perspective of Ramsay's winning entry of the competition of Edinburgh University Medical School Extension, 1951

Compared with other entries in this competition, Ramsay's design was based on appreciation of the Georgian architecture of the Square. A. G. R. Mackenzie had the following comment: 'A design has been obtained which goes far to restore the architectural unity of the Square ... as having been destroyed by the existing 19th century buildings on the site'.

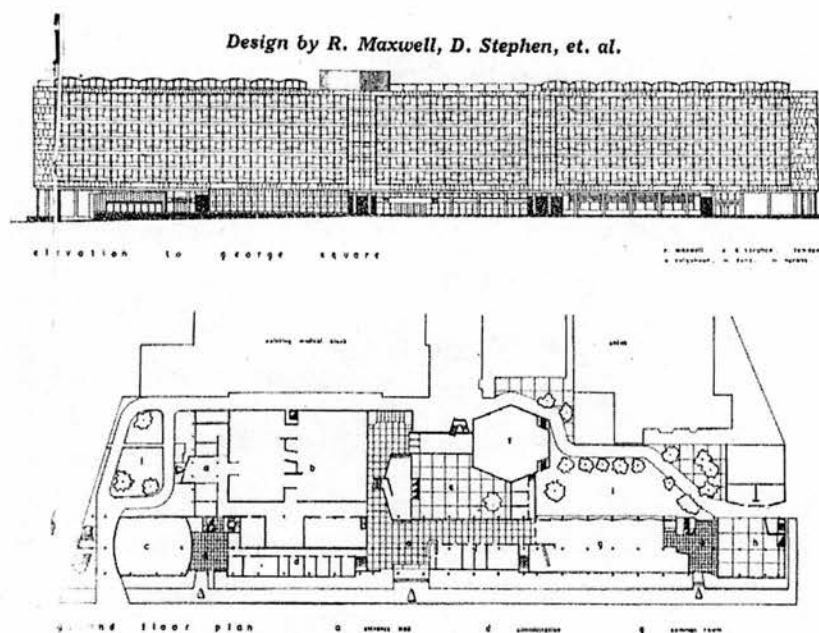
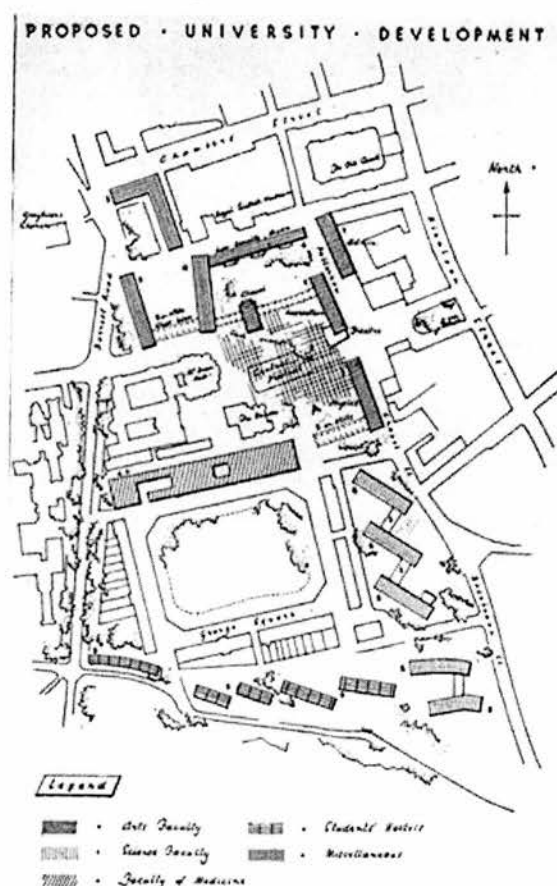


Figure 4.27: The alternative proposal for the Medical School Extension by the Student Architect Group, Edinburgh, 1951



The Student Architect Group suggested retaining the existing buildings around the Square while redeveloping adjacent areas for university expansion. Arts Faculty facilities would be placed on the north, beside the McEwan Hall. The Science Faculty was designated accommodation in the area to the east of the Square. And students' hostels would be in the area south of Buccleuch Place. It was a provocative concept. The problem, however, lies in the random placing of the blocks, which seemed to be made without profound questioning of its validity in the urban fabric.

Figure 4.28: The alternative plan for the University Development by the Student Architect Group, Edinburgh, 1951

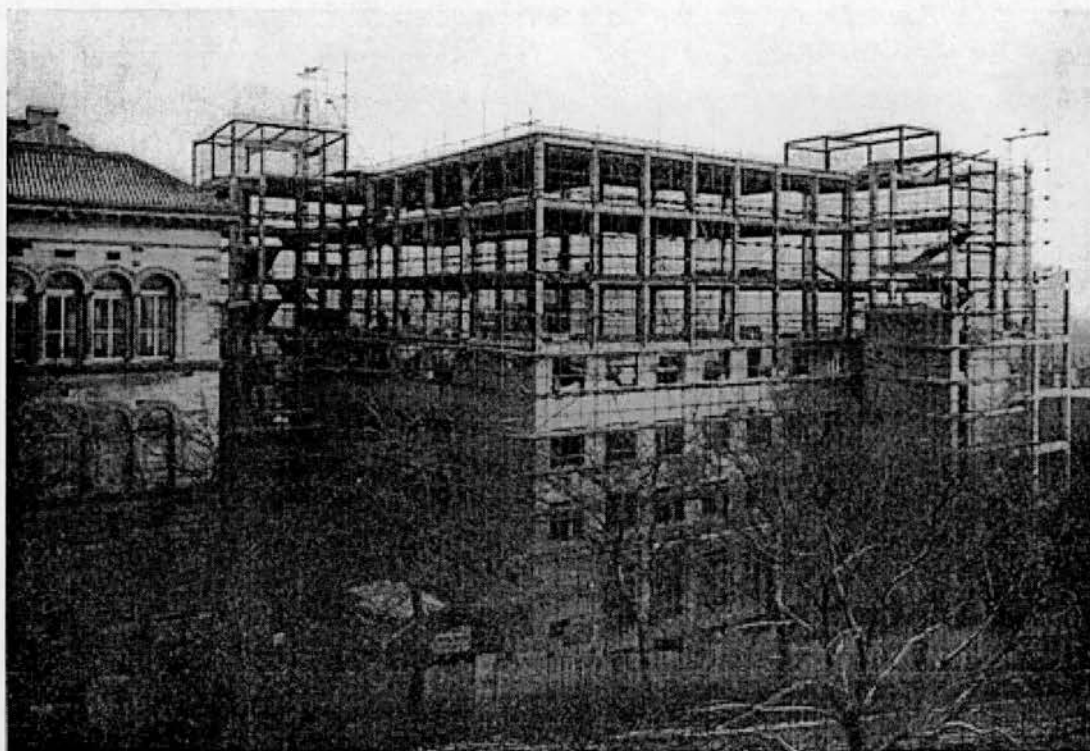


Figure 4.29: The Physiology and Pathology Building during construction, 1959

From this angle, we can see the relationship between the new buildings and the Medical School. The connection to the existing buildings by staircase was a nice strategy for avoiding the clash between different volumes of buildings. The placing of the new building completed the rhythm of silhouette of the Medical School towards the Middle Meadow Walk.

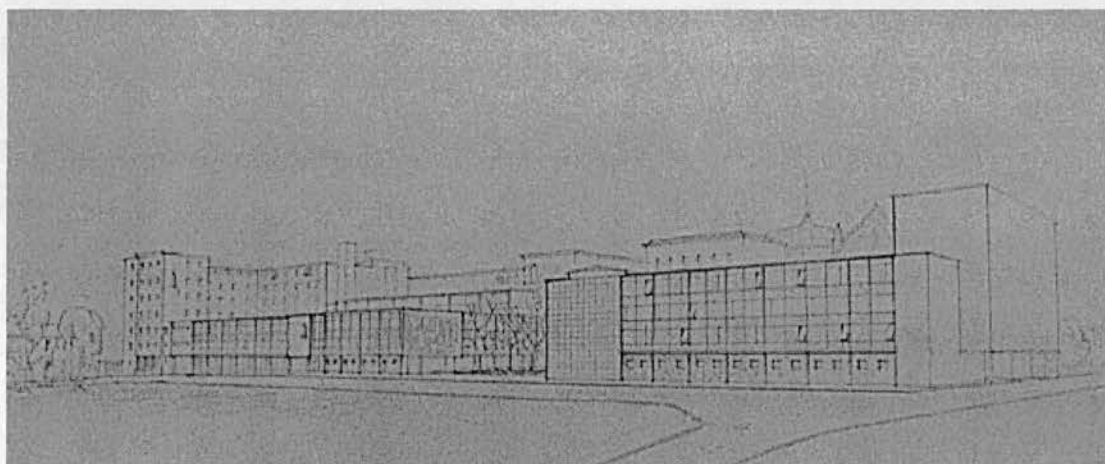


Figure 4.30: Ramsay's sketch for the Medical School Extension, 1957

Although the proposed garden between two wings of the Medical School Extension was appealing, the architectural design for these buildings at this stage was far from impressive. The insensitive use of rubbles, mosaic and fresco led to a chaos in the façade treatment.

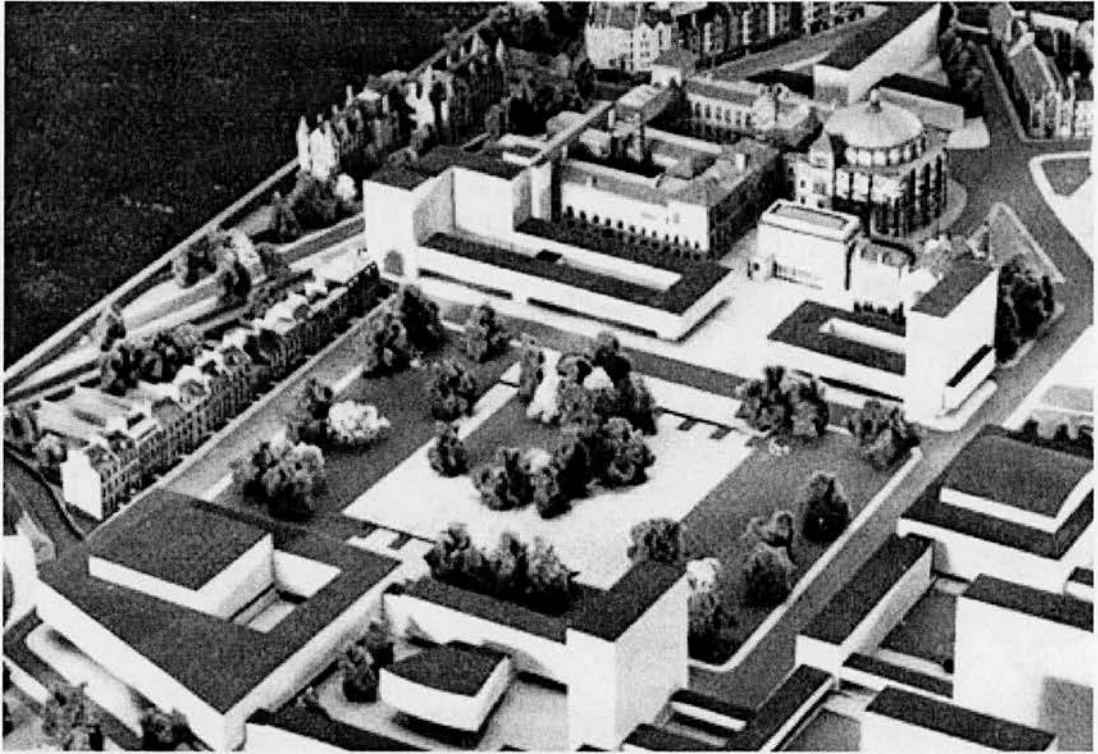


Figure 4.31: Model of the 1959 Plan for George Square by Basil Spence

Responding to the Modernist design of the other two sides of George Square, Basil Spence reversed the solidity indicated in Ramsay's design. Openness was expressed through the replacement of the central block with garden and through lowering the height of surrounding buildings. Apart from the problem of considerable reduction of floor space, there was an uncertainty about how to obtain the service connection, as the east access was blocked by the east wing of the complex. This problem also applied to the Comprehensive Development Plan by Percy Johnson-Marshall in 1962 as Figure 3.26 shows.

This model clearly shows the layout of the Library: the inner courtyard separated the main volume of the building with the administration bay on the east side of the building. The courtyard would allow natural light and air to penetrate into the building.

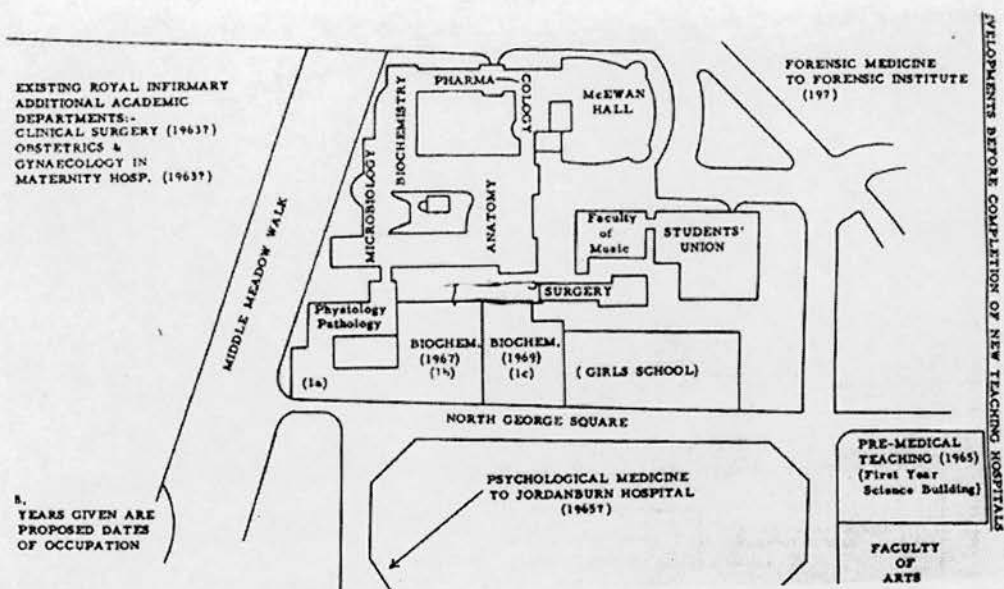


Figure 4.33: The intermediate arrangements of the Medical School buildings, 1962

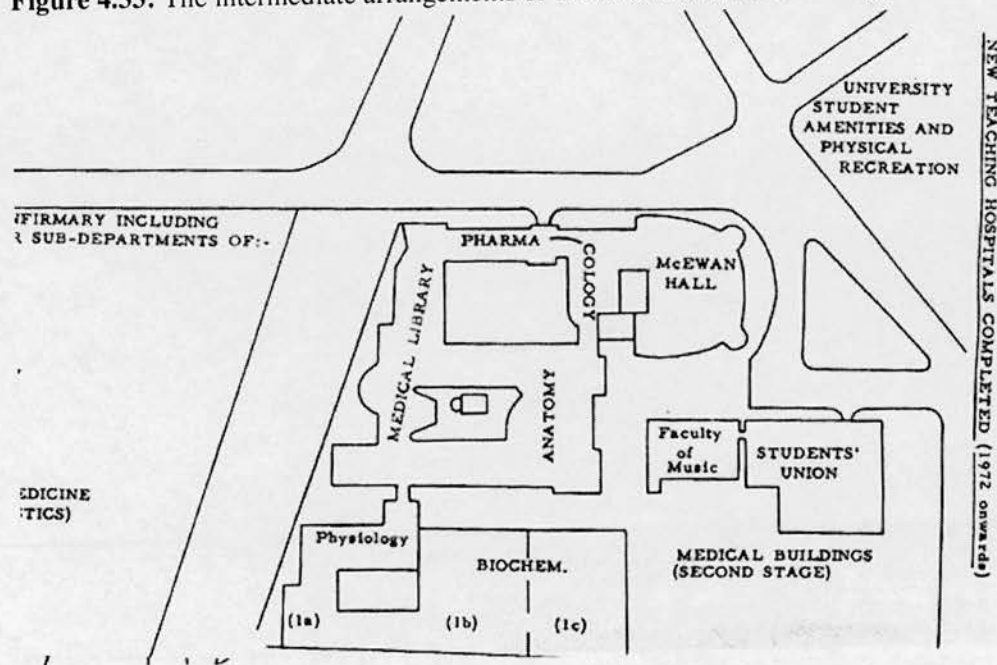


Figure 4.34: The proposed 1972 arrangement of the Medical School buildings, 1962

The intermediate arrangements of the Medical School buildings were associated with the timing of the new development in the Royal Infirmary and the Western General Hospital, since the clinical departments were closely related to the facilities of these two teaching hospitals. One problem of these arrangements was the long circulation route within the Medical School as there was only one connection between the extension and existing building. Again, the service connection remains as a mystery in Figure 4.33.

Table 4.2: U.G.C.'s Building Allocation for 1966/7

Project	Building cost	Allocation in 1964	Allocation in 1965-66	Allocation in 1966-67
Botany	39,000	39,000	-	-
Obstetrics & Gynaecology	24,000	24,000	-	-
Surgery	11,000	11,000		
Alison House	33,000	33,000		
Physics	17,000	17,000		
Arts and Social Sciences C,D&E foundation	90,000	90,000		
... structure	723,000		723,000	
1 st year Science completion	27,000	27,000		
Library structure	1,326,000	1,326,000		
Library finishings	358,000		358,000	
A medical building	295,000			295,000
Total	5,045,000	1,995,000	2,200,000	850,000



Figure 4.35: Pharmacology Building at Nos. 1 and 2 George Square

From this angle, the contrast of facade treatments is revealed. So-called ‘softening’ is only applied to the facade towards the George Square. Also, there is no coordination in architectural-design terms between this building and the later Students’ Centre Complex in Bristol Area.

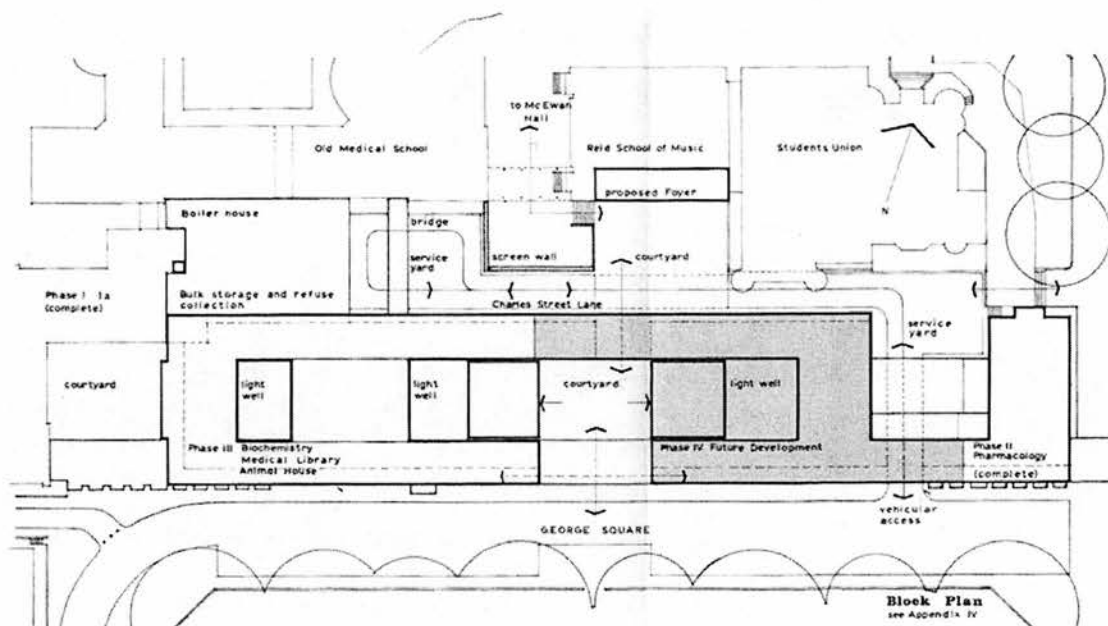


Figure 4.36: Feasibility Study of the Medical School Extension, 1972

One of the major concerns of this plan was to tidy up the service road – Charles Street Lane. The architects proposed to block the connection from Charles Street and to create two new service yards at either end of this route. In addition, the courtyard between Phase III and Phase IV would break the monotony of this backyard space. However, this improvement relied on one condition – demolition of George Watson’s Ladies’ College and the Wilkie Surgery Lab. This condition was unclear when this plan was drawn and became impossible during the mid 1970s. The sheer size of the Boiler House blocked not only the lights to the rooms on its either side, but also the connection between Phase III and the existing Medical building. This explains why a bridge was proposed above the western service yard in the plan.

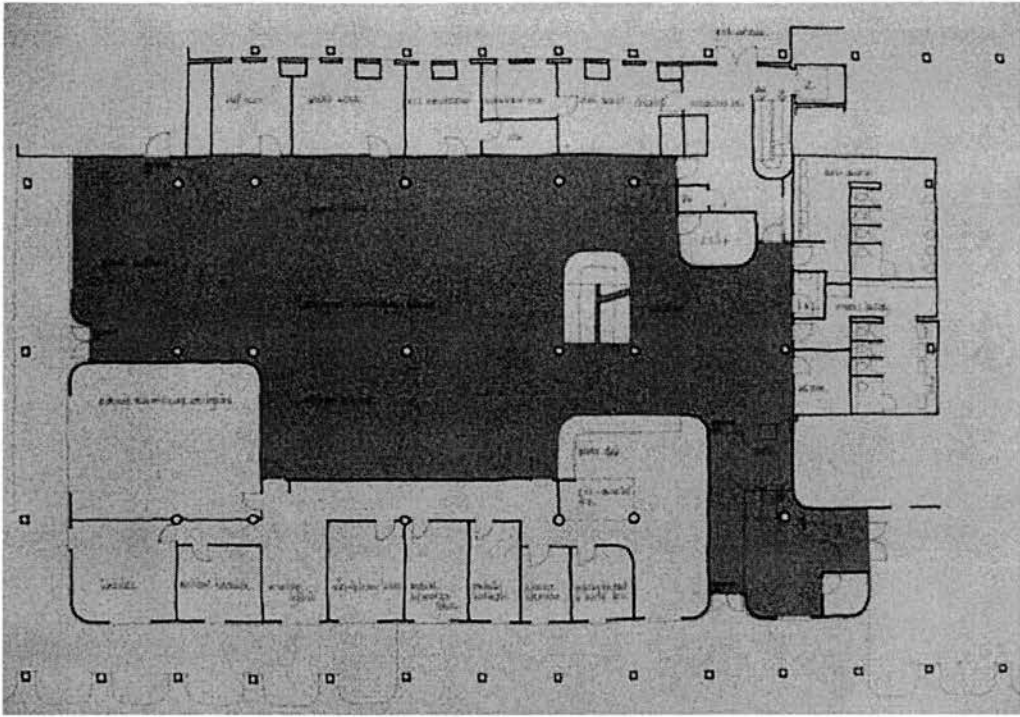


Figure 4.37: The ground floor plan of the Medical Library in the Biochemistry building, 1975

In this plan, the Library occupied three floors which would be connected through an interior staircase. Although it would have access from the main entrance hall of the building at the ground floor, the Library would also have its independent entrance from George Square. The shadowed space would be the main reading room with book stacks and catalogues, whilst the offices and services were placed around the periphery.



Figure 4.38: The George Square façade of Hugh Robson Building

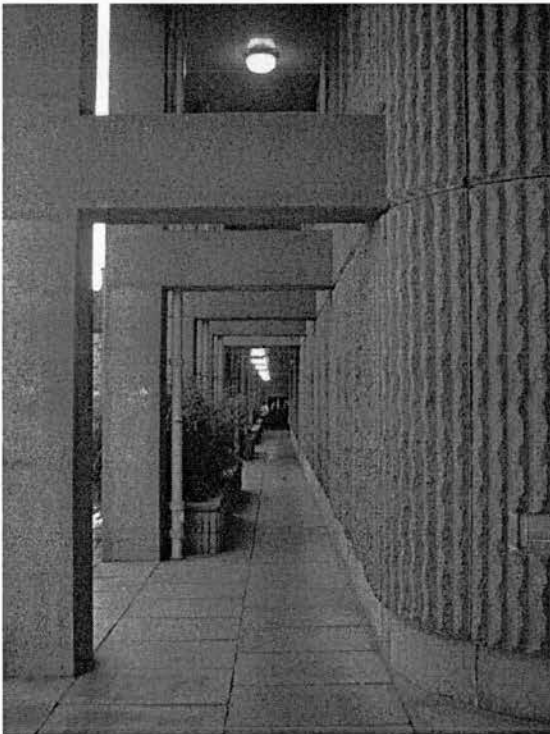


Figure 4.39: The Pilotis of Hugh Robson Building

There is a contrast between the regularity of the upper part of the façade of the Hugh Robson Building and the irregular grouping of pilotis creating a sense of asymmetry at ground level. The layering effect on the upper part of the façade is expensive and lack functional justification.

Proposed Library For Edinburgh University 10/1949

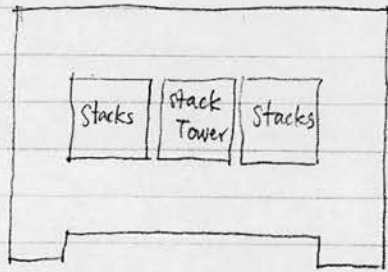


Figure 4.40: A rough plan of the University of Edinburgh Library, 1949 (reproduced by the author)

This is a typical closed-access layout with the stacks and the stack tower being placed in the centre of the plan, surrounded by reading spaces. The floor height of the stacks and the stack tower were different from that of the reading space. The major disadvantage of this layout is that it would not allow for changing the relation between the stacks and the reading space. The advantage compared with the open-access layout is that there is no need to design an even floor structural loading to permit interchange of stacks and reading space, which will raise the expenditure of the building.



Figure 4.41: Hugh Casson's sketch of the University of Birmingham residence, 1957

In this sketch, Hugh Casson applied the mechanism of the focused perspective to emphasize the importance of the natural surroundings to the new University hall. This hall consisted of a tower and linear blocks. Under the architects' accomplished charcoal strokes, the buildings gradually fade away, and the built environment and nature appear to become one.

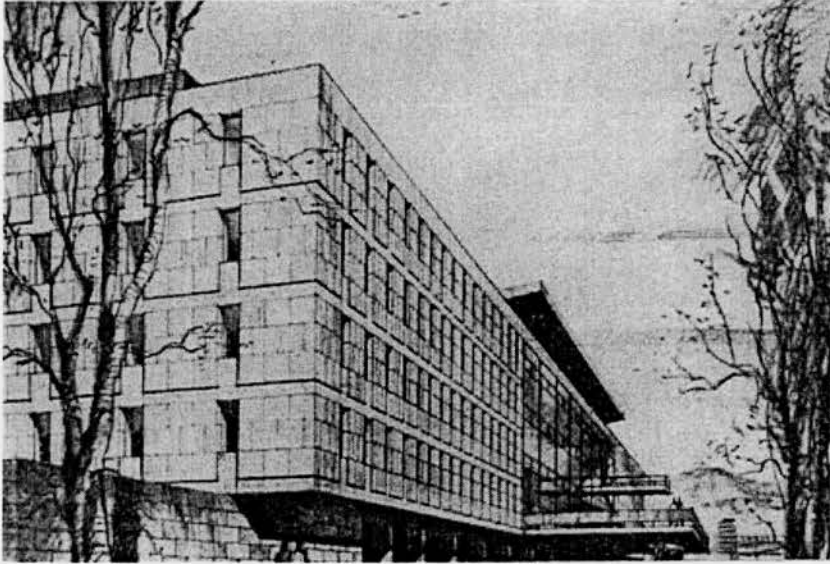


Figure 4.42: The 1959 Drawing of the University of Edinburgh Library, façade towards the Meadows

This drawing shows the main volume of the Library hovering above the pilotis and supporting walls in the lower level. From the façade of the building protrudes the cantilevered staircases which would lead readers from the entrance foyer to the Meadows. It should be noticed that the flat dome for the reading rooms, in Spence's 1955 preliminary sketches, was replaced with a flat roof.

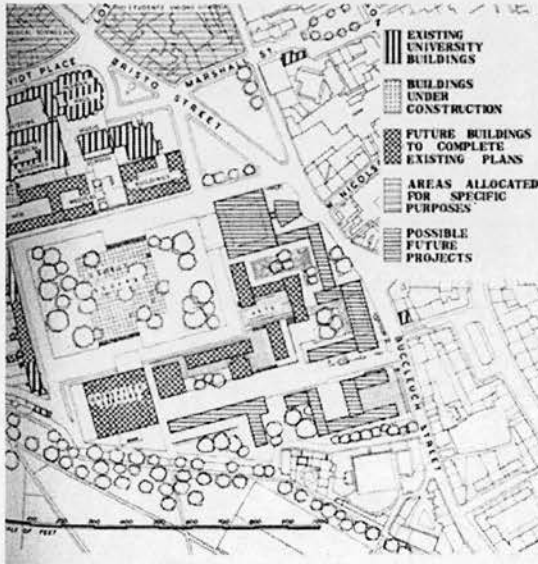


Figure 4.43: The 1960 plan of university development of George Square

Compared with the trapezoid in Spence's 1959 plan, the Library was given a rectangular form in Robert Matthew's plan in 1960. The footprint of the building was decreased and the inner courtyard was removed. This change to the footprint was probably the consequence of the planning requirements imposed by the City Council. They required that the southern service road of the Library should be connected to Buccleuch Place, and some space for the turning of service vehicles was needed.



Figure 4.44: Entrance hall of the undergraduate Library at the University of South Carolina, the United States, 1957

Among the first undergraduate libraries in the United States, this building was a showpiece of Edward J. Stone's combination of International Style with his personal preference for classical monumentality. Supported by the concrete columns, the seemingly endless ceiling, dotted with regularly placed lights, gives the hall a striking effect. This effect must have inspired the Librarian of the University of Edinburgh when he visited this building in 1961. The design of the entrance hall of the University of Edinburgh Library shows many similarities. This building provided 600 seats for students with air conditioning. Due to the quality of the environment, the library became very popular in the University of South Carolina. In 1963, it won 'First Honor Award' from the American Institute of Architects.

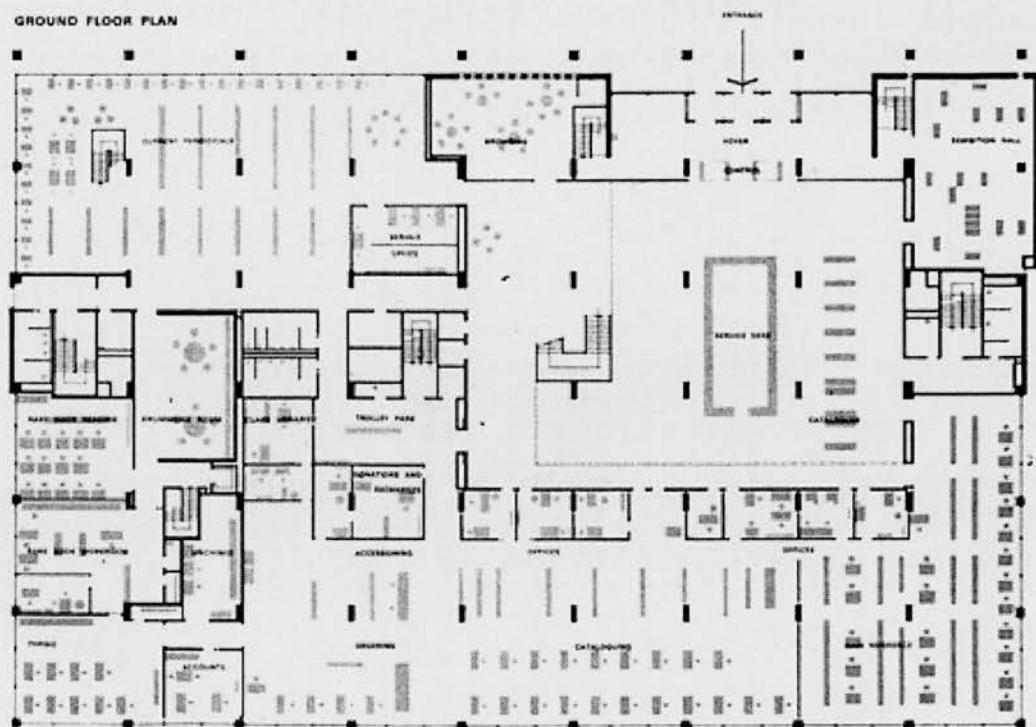


Fig. 4.3. Edinburgh University Library: Floor Plan, Ground Level. Source: Sir Basil Spence, Glover and Ferguson, Architects (Edinburgh). "Edinburgh University Library" (1968). By permission from James Beveridge of Sir Basil Spence, Glover and Ferguson.

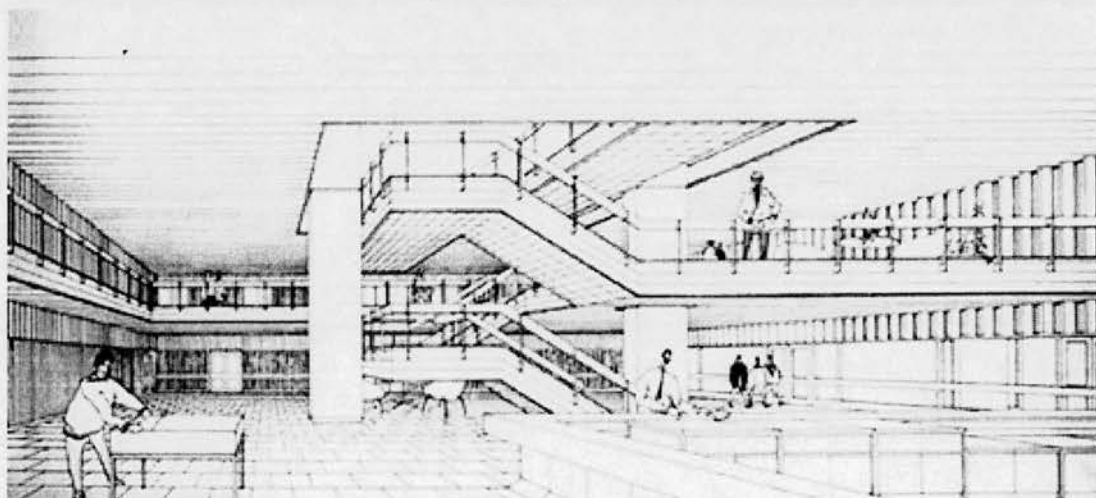


Figure 4.45: The plan and perspective drawing of the entrance hall of George Square Library

In the implemented plan of the entrance level, the service desk and catalogues were installed in the middle of the two-storey entrance hall. The exhibition and current periodicals spaces had respective access on the eastern and western sides of the entrance hall. At the south side were cataloguing and library offices. Beside the service desk, a staircase led readers to the first and second floors. Delicate joinery work was applied throughout. The perspective drawing, however, shows the lack of balance between the powerful staircase and the surrounding area whose character was largely undefined. For example, a pair of chairs is placed under the staircase. It is not a comfortable location at all; however, the architects could not arrange a better place for informal seating at the ground floor.

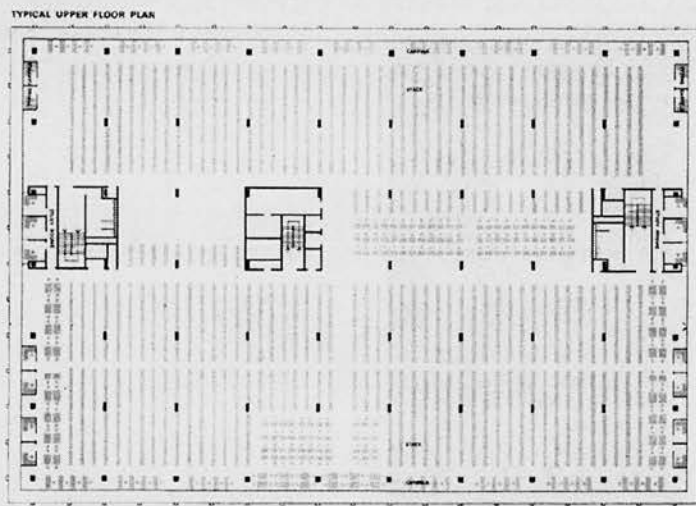


Fig. 4.4. Edinburgh University Library: Floor Plan, Typical Upper Floor. Source: Sir Basil Spence, Glover and Ferguson, Architects (Edinburgh). "Edinburgh University Library" (1968). By permission from James Beveridge of Sir Basil Spence, Glover and Ferguson.

Figure 4.46: The typical floor plan of the University of Edinburgh Library

In the layout of the research library, at the third and fourth floors, the collections were installed in the centre of the plan whilst the reading spaces were allocated at the periphery in order to gain adequate natural light and a nice view out to the George Square Garden or the Meadows. The subsequent problems of this open-plan were as follows: lack of a clear sense of orientation, poor ventilation inside the building and lack of personal comfort in the canteen-like reading spaces – especially in the south side and the centre of the plan. Despite these drawbacks, it was the first building in the history of university library planning in Great Britain to have such a large uninterrupted open plan.

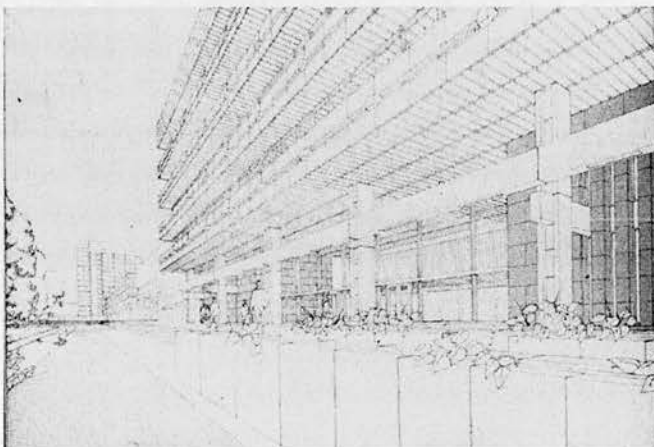


Figure 4.47: Perspective drawing of the Library; view from George Square

The façade of the Library was to keep in line with the linear teaching blocks of the Faculty of Arts and the 600-seat lecture theatre. This group of horizontal buildings would form a contrast with the Arts Tower so as to create a harmonious but striking effect for the George Square frontage. The problem for the design of the Library is that although the cantilevered balconies and a long beam above the entrance contribute to its elegant appearance, they lack functional justification. The 'balconies' do not function as balconies. The expensive beam seemed to become a gigantic light tube, having no structural meaning.



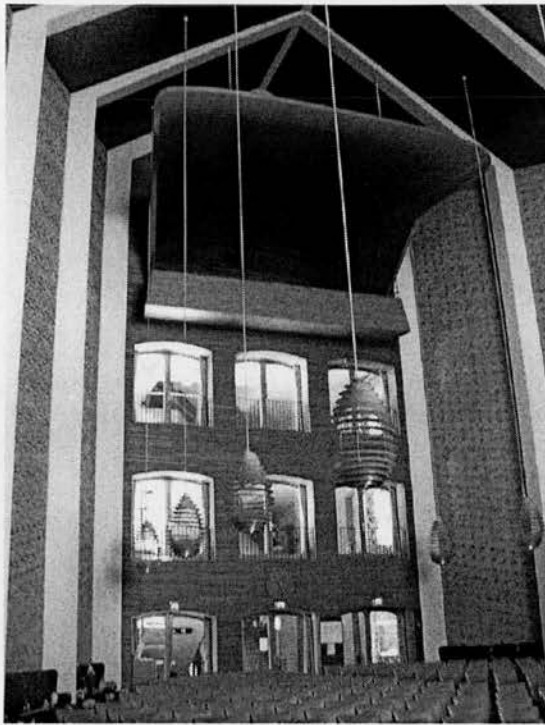
Figure 4.48: Birdview of George Square

This angle of viewpoint clearly shows the Library's sheer size, compared with surrounding tenement, historical landmarks and new university buildings. It is clear from this angle that the south-most site at George Square, for the Library, is hardly 'central' as Basil Spence claimed in 1954.



Figure 4.49: Arhus University campus, Denmark: view towards the Meeting hall

Arhus University campus is a fine example of the integration of the built environment with the natural surroundings. The buildings seem to grow from the land where they are founded. The landscaped outdoor amphitheatre, with the brick wall and colonnade, creates a theatrical setting and enhances the interaction between the building and nature.



Particularly commendable in the design of Aarhus University, is the architects' careful attention to the characteristics of the various materials used. Materials are shaped to the forms which suit their physical properties. The bricks on the walls are woven into rich patterns and a vast wood canopy hangs over the entrance. These forms, though seemingly exotic, have acoustic benefits and bring vitality to the space.

Figure 4.50: Interior of the meeting hall of Aarhus University, Denmark



Figure 4.51: The two-storey entrance foyer of the University of Edinburgh Library

Since the original 1968 plan, the layout of the Library has undergone repeated changes. Take the entrance hall for example. With the introduction of new swiping-card entrance system, the service desk was moved against the southern wall and catalogues, being replaced by computing browsing. These were installed in the north-eastern corner of the hall. Compared with the 1968 plan, today's layout is more suitable to the character of this space. At the time of writing, further modifications are under consideration.



Figure 4.52: Reading room at the first floor of the University of Edinburgh Library; 1968' view

Noise and lack of personal comfort were the two major problems for such a vast open plan building as the University of Edinburgh Library. Curtains had to be installed to sub-divide the reading area. If there were no such visual barriers, how uneasy would the man standing beside the book stack have felt! To maintain adequate illumination for each reader, lamps in the ceiling had to be very densely placed. It would probably be categorized as 'un-ecological' if the Library were built today. However, the provision of an unprecedentedly vast number of reading seats for students must be set in the scales against those problems.

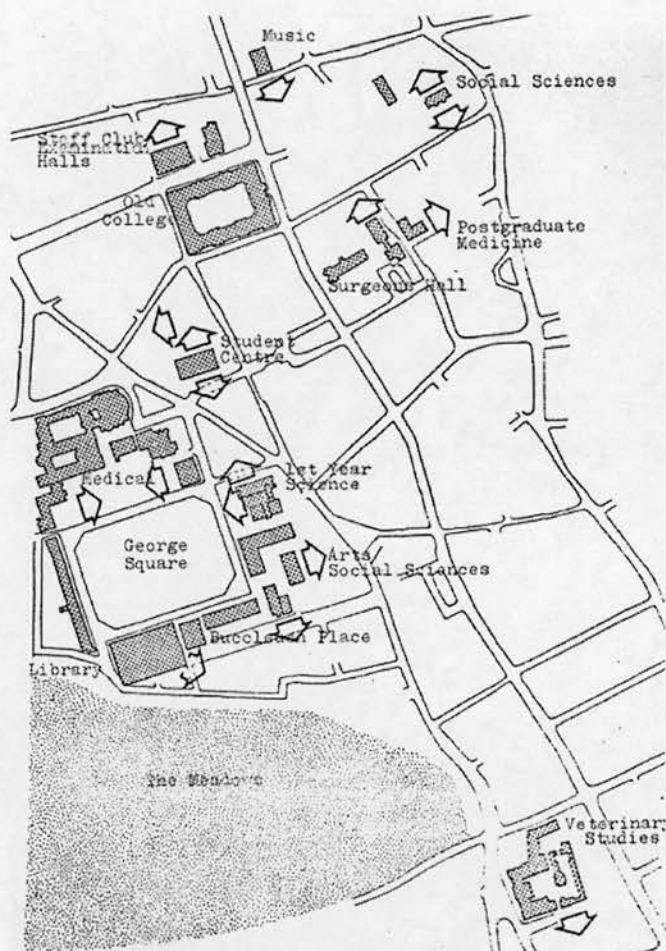


Figure 4.53: The growth pattern of the Faculties proposed by the University, 1969

Though this plan seems to be a sound configuration, this campus-like pattern was not fulfilled given the urban situation of Edinburgh in the 1960s and 1970s. Failing to expand to the proposed dimensions, the Faculties of Arts and Social Science and the First-Year Science teaching, being put together in a single area, actually limited each other's development and affected their proper working. Although they were fully alert to the difficulties of urban planning in Edinburgh, the University authorities were too optimistic about their development plan to think how the University community would work in the intermediate period.



Figure 4.54: Comparison between Medical buildings and Arts and Social Sciences buildings
The design of Pharmacology Building was the result of compromise between Ramsay's classical values and Spence's modernist ethos. Though the two buildings were both clad with stone of similar colours, the divergence in architectural design was too great to form a harmonious whole.



Figure 4.55 The sub-podium level of the Arts and Social Sciences Precinct, the University of Edinburgh

This is the main entrance hall to the sub-podium level of the David Hume Tower complex. From this hall there are accesses to a refectory and shops. On the right hand of the image, the door leads to the sunken garden, which, disappointingly, has seldom been used. This floor offers convenient amenities for students and staff. The role of an active space of faculty level activity, designated by the plans is, however, far from being accomplished.

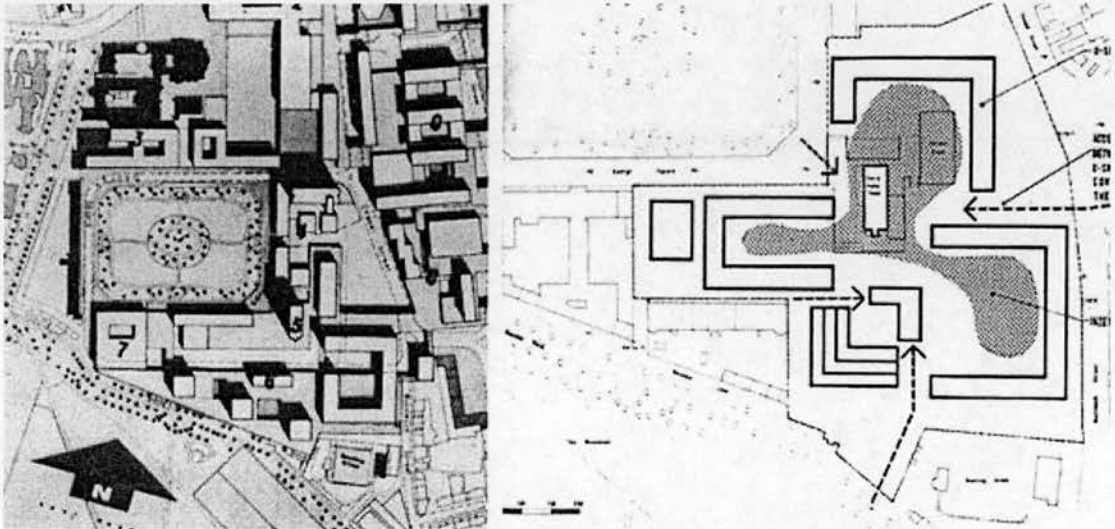


Figure 4.56 Comparison between the 1962 C.D.A. Plan (left) and the 1964 plan for the Faculties of Arts and Social Sciences buildings of the University of Edinburgh

A common drawback in the planning of urban universities lies in the lack of attention to the development as a whole. The pressure of attenuated planning processes and severe cost restraints led to the C.D.A. Plan breaking down into piecemeal developments.

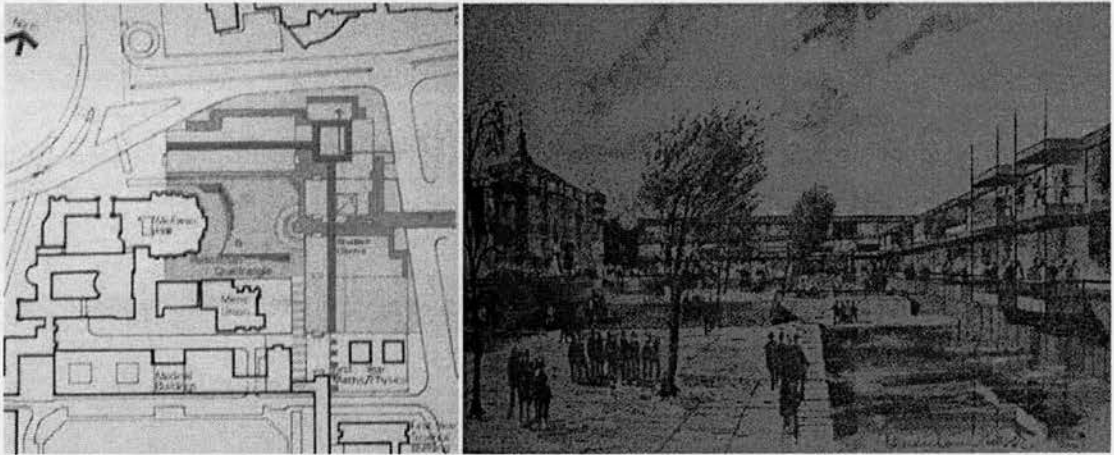


Figure 4.57 Various designs (plan and sketches) of the new Bristo Square in the 1960s



Figure 4.58 What the Bristo Square looks like today

The evolution of design for the Bristo Square shows the dilemma of compromising between the need for a lively space for higher education and the requirements of a public open space. In the earlier C.D.A. plans in the 1960s, the enclosed nature of the Square did not seriously address how to make it public. Bristo Square as built can claim to be 'the first public open space for the century'; but it failed to become an integral part of the campus of the University.

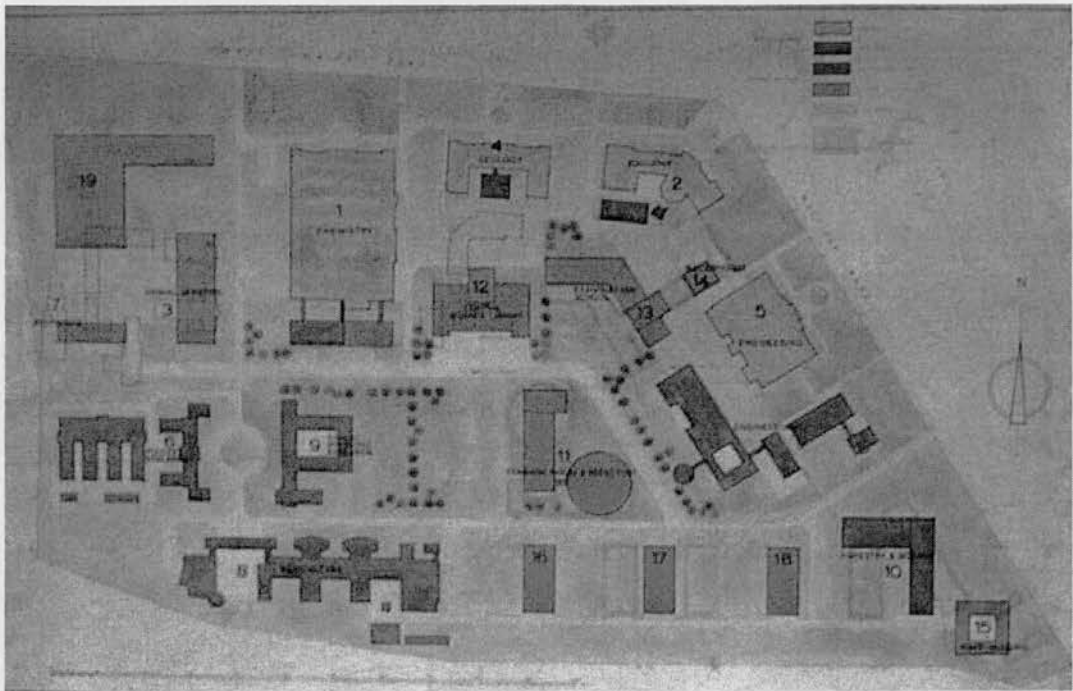


Figure 4.59 The plan for development of the King's Building site by William Kinninmonth, 1961



Figure 4.60 The King's Building today

As the above map shows, the need for room for future growth led to the planning strategy of dividing the site into disparate slots. The placing and design of the buildings lacked a convincing logic like that which Kinninmonth proposed for the Halls of Residence at Salisbury Green site (see **Figure 3.16**). As the lower image shows, these buildings of different periods are clearly without consideration to their surroundings. This situation is allowed to continue even today.

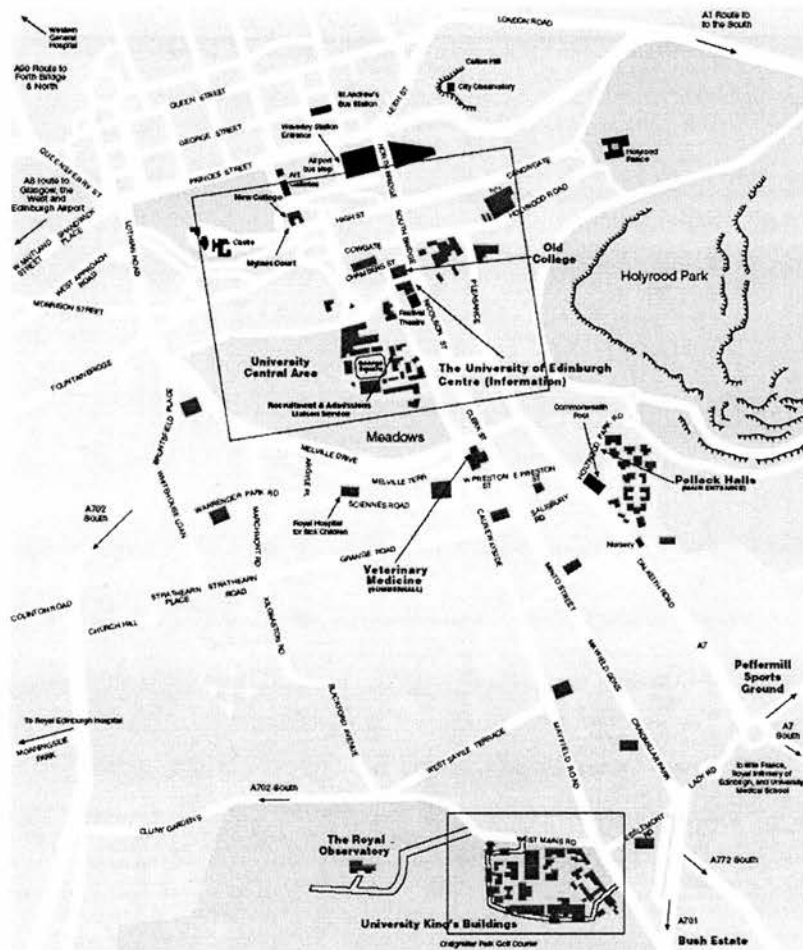


Figure 4.61 The general map of the built fabric of the University of Edinburgh

The blocks of grey are the properties owned or managed by the University of Edinburgh. The bigger rectangular delineates the central area of the University while the smaller one depicts the King's Buildings. The group of buildings conglomerated to the southern foot of Salisbury Craig is the Pollock Halls of residence.

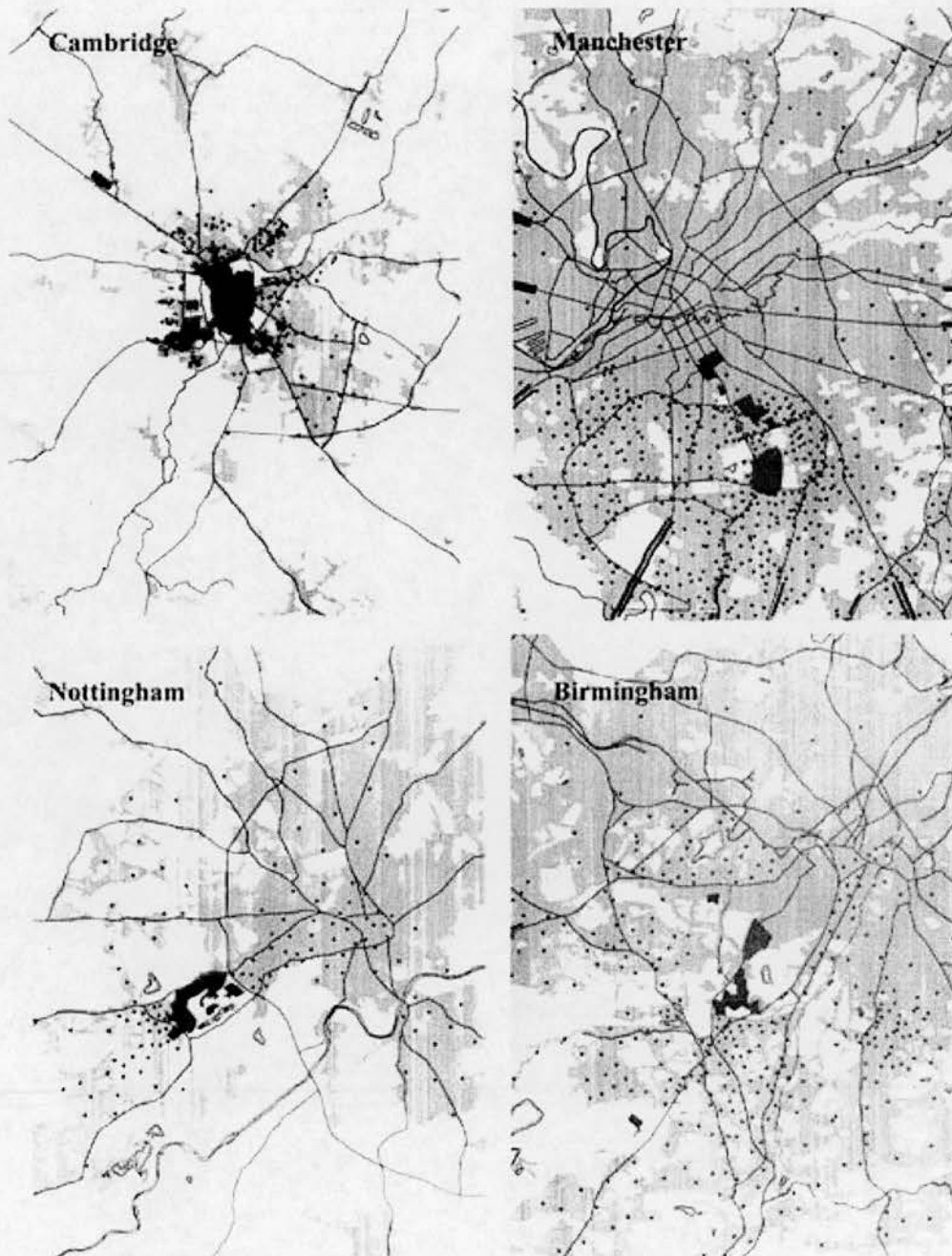


Figure 4.62 Distribution of students' residences at four universities (Cambridge, Manchester, Nottingham and Birmingham), 1967

Reproduced from *A Theoretical Basis for University Planning* (1967)

In the map, each dot represented ten students, either living off-campus or in purpose-built students' accommodation. The pattern at Cambridge University shows a great concentration of student's residences around the city centre. This derived largely from the collegiate tradition which not only offered colleges, but also established a strong culture of private lodgings. The other three universities have their students' residences widely spread around the host cities, in their specific patterns.